TRAUMA PRAMESH PATEL

Describe the pattern of disease/illness of interest in the population with which you will be working and discuss this in the context of global health.

It will be interesting to see how trauma is dealt with in a country that is resource poor. Also there is no primary prevention like in many other global countries so the amount of trauma will be more then the global average

I was working with Dr Pandey, an Orthopaedic consultant at Medicare hospital in Kathmandu. The majority of the department's workload was dealing with fractures and degenerative changes in the elderly. A higher proportion then in the UK.

In my opinion, the reason why there are so many fractures is because of a lack of infrastructure. This was apparent as soon as I arrived in Kathmandu. Although there are roads that have been surfaced, there are still many roads that have not and have very uneven surfaces. This makes walking on them extremely difficult even for the youngest, fittest adult. This I believe contributes to the increased number of fall injuries resulting in radius and tibia fractures seen. Furthermore the driving style in Kathmandu is extremely erratic, with drivers not waiting where they should, driving on the wrong side of the road and not allowing pedestrians cross the road. Add this to the huge number of motorcycles on the road and it is easy to see why there are also a lot of injuries resulting from road traffic accidents. In addition, trekking injuries are also seen due to the close proximity to the Himalayas and the popularity of the trekking routes.

Finding a cause for degenerative changes is more difficult as it is multi-factorial. Women are under a lot of pressure to prepare the house and look after children, therefore never leave the house much. This means they are not exposed to much sunlight. Furthermore, women still cover up most of their bodies again blocking sunlight to their skin. Add this to the stress they have and it is easy to see why so many women complain of lower back and knee pain, for which there is no magic cure. This sort of lifestyle with a Nepalese diet dramatically increases the change of getting diabetes and hypertension which also plays a part in the disease process. In outpatients we have seen a lot of people who think they have controlled their diabetes well, when in fact it is not. Therefore as well as treating the symptoms it is important to give advice about lifestyle and treat any possible contributing disease processes.

Spending time at Shahid Gangalal Hospital highlighted the large numbers of people who require a valve replacement, due to the high numbers of people who have had rheumatic fever in the past. Although the numbers are decreasing due to better hygiene, the number of people with rheumatic fever is still much higher then the global average, and will be many years before the numbers reach the global average. However, a positive from this is that Dr Sharma and his team are extremely competent at valve replacement surgery and their success rate is now actually better then the global average despite the lack of resources of many western hospitals, highlighting the expertise that Kathmandu and Dr Sharma has to offer.

Describe the pattern of health provisions in relation to the country in which you will be working and contrast this with others countries or with the UK.

Nepal has a similar system to the UK. A publicly and privately funded healthcare program. However due to the country's lack of resources the publicly funded system is not as complete as the NHS.

I have been fortunate enough in Nepal to see how a privately funded hospital and a government hospital are run. Dr Pandey works at Medicare hospital which is completely privately funded, and despite this fact, the hospital is not up to Dr Pandey's standard and the standard in the western world. There are frequent power cuts and a lack of space to practice medicine effectively resulting in Dr Pandey not being able to effectively utilise his time and skill. Despite this fact, Dr Pandey over the past 16 years has built a reputation which means that he gets patients from outside his hospital's catchment area. In addition patients who have been seen in government hospitals and have had sub optimal treatment come to see Dr Pandey for a second opinion and to get further corrective treatment in order to return to full function. More notably he has also performed miracles in treating two very serious trauma cases where there were multiple severe pelvic fractures, one resulting from a para-gliding accident and one resulting from a motorcycle accident. This is a great credit to Dr Pandey and his team. The second hospital that I was fortunate to visit was Shahid Gangalal Hospital, a dedicated heart hospital. This hospital although government run still requires patients to pay and is much bigger then Medicare. It also has dedicated outpatients, pre-admission and pre-op departments. However the only imaging modality available is x-ray. The staff also seem better organised meaning that the surgeon's time is used more effectively.

Due to the country's poverty 10% of Gangalal's beds are termed as 'free beds' which means that all expenses apart from disposable items such as bandages and medicines are paid for. This is a fantastic program that opens up treatment to those who sometimes need it the most, and I believe is a program that private hospitals in the UK should also adopt to reduce the burden on the NHS and comply with its social duty. Dr Pandey also contributes to charity, most notably in the time and effort taken to see his dream come true of building a truly world class hospital in Nepal. After two years of hard work he still has not taken a single penny for personal gain. He also recently had a special request to treat a student who had broken his arm. Unfortunately he was unable to pay for his treatment, however due to Dr Pandey's motivation to help people rather then personal gain he provided treatment free of charge and the student only had to pay for the post-op period. Charity like this is unheard of in the UK and only pioneering new treatments and patients involved in research usually get free private treatment.

Health related objective.

See how resources are allocated in a restricted system, the way trauma is dealt with in a different country and if a multi-disciplinary team approach is taken.

Resource allocation in Nepal is a big part of medicine. Outpatient department is where this becomes most obvious. In the UK, before starting any sort of treatment, a patient's diagnosis is confirmed using a battery of tests. However in Nepal, using this approach is extremely expensive and means that it could put the correct treatment out of reach for many people. Therefore a slightly different method is used. A full history and clinical examination is done and after any serious pathology and complications are ruled out and the diagnosis of degenerative changes is made for example, treatment is started immediately. The patient is then followed up to see if their symptoms resolve. I believe this method works for several reasons. Firstly the majority of the population is deficient in vitamin B12 due to the fact their are vegetarian and have reduced bone density because they cover up their whole bodies even in extreme heat. Therefore by giving supplements most people find that their symptoms get much better. If they had to get a bone density scan and a vitamin B12 level, this would cost in the region of 10,000 rupees which is extremely expensive considering an outpatient consultation costs 360 rupees. In addition when you consider in a single clinic Dr Pandey regularly sees 30 patients the cost can really build up.

Despite this trauma is dealt with extremely effectively, and in some case even better then in the UK. There is no waiting list and operations occur on a daily basis. This means there is no backlog. There are however areas that need improvement, mainly in the training of the scrub nurses. On many occasions, the correct equipment or right size screws have not been present in theatre, delaying the procedure. Furthermore, on a few occasions the nurses seem not to know what each instrument pack contains resulting in several sterile packs been opened to look for a particular instrument. This is a waste of resources in a system that cannot afford it. This happens in the UK as well although not as frequently. However one problem that seems to plague both the UK and Nepal is having the patient in theatre at the correct time, to minimise the amount of time that surgeons are waiting around. In the UK, the reason this occurs is because of the mountain of paperwork that needs to be completed before a patient can even enter the operating department. To compound the issue there is no waiting area where some issues can be addressed and instead patients come directly from the ward straight to the operating room. Although there is paperwork involved in Medicare, it is not as much as the UK and appears not to be the cause of the delay. However the waiting area in Medicare is shared with the recovery room so it is not possible to bring patients down.

Medicare is a relatively small hospital meaning that using a multi-disciplinary team approach is extremely difficult as the different team members are never together. However, Dr Pandey does an extremely good job of using the resources he has and has an extremely good orthopaedic team supporting him. His team consists of another surgeon Dr Paudel whose anatomy knowledge is outstanding and a very enthusiastic medical officer Dr Thapa. They are always offering their support during outpatient clinic, ward rounds and operating sessions. This team also works closely with the scrub nurses, physiotherapists, clinic nurses and clinic administrators, to ensure that things run as smoothly as possible. This is extremely important because a regular occurrence is power outages. This means that during operations, every member of team must know what to do and how to manage the situation. I think Dr Pandey has worked extremely hard to achieve this and always

keeps a cool head and manages the different teams very well during these difficult times. However in Dr Pandey's new hospital Grande International Hospital power cuts will be a thing of the past allowing him to focus his full attention on providing the best treatment possible. A good example of this is joint replacement. Dr Pandey feels that undertaking elective joint replacement in Medicare may result in a sub optimal result, and therefore although he is incredibly skilled does not under take this operation if it is not needed. However, at Grande International Hospital the facilities, reliability and general clinical environment will allow Dr Pandey to unlock his full potential and head a truly world class hospital.

Personal/professional development goals. Must also include some reflective assessment of your activates and experiences

Develop skills to make effective use of resources, experience medicine in a different country and prepare me for my job.

I have seen how a healthcare system works in a country that is not as fortunate as the UK and how resources have to be allocated carefully. I hope I will be able to use what I have seen and learnt to help the NHS. This is even more important now than ever as due to the recent economic events the NHS's funding as been put under the spot light and it is now looking at ways of reducing its' tremendous expenditures. I have also learnt a tremendous amount about orthopaedics, cardiothoracics and urology. Although I have read about these topics in books and sat exams on them, there is no replacement are for real life experience and I am thankful to Dr Pandey for providing this. The experience I have gained will be a great boost to me when I start my first job in ICU. Learning about managing fractures has been a personal highlight as we are taught that they have to be managed but not taught how. Dr Sharma has also provided me with a huge amount of knowledge about cardiology which has reinforced what I have learnt and again will be invaluable when I start my first job.

I feel that I could have gotten more out of the outpatient clinics if I understood the language, however I got the main points and Dr Pandey and his team highlighted interested cases and answered any questions while explaining the main presenting complaint and going through x-rays. Furthermore, although I got to scrub, it would have been useful to try suturing. Dr Paudel had demonstrated various techniques and the pro and cons of them, and being more hands on would have been the cherry on the cake in what has been an outstanding elective.

I would like to say that my time in Nepal has been an unforgettable experience and would love to come back again to see how the country and Grande International hospital has progressed and will take this opportunity to thanks Dr Pandey for all he has done, the experience that he has given me and wish him every success in the future and with his new hospital. I would also like to thank Dr Paudel, Dr Thapa and Dr Sharma for the time they have spent with me and again hope they prosper in the future.