

Medical elective – Peru (Cusco and Puerto Maldonado)

1. Discuss the pattern of disease/illness in Peru

During our elective in Peru, we split our time between Cusco, a city in the southeast of Peru, near the Andes mountain range at an altitude of 3400m above sea level, and Puerto Maldonado, a small town bordering the Amazon Jungle in the Tambopata region of Peru. Cusco has a population in the region of 360,000 (in 2007) and it was here that we saw health problems more akin to those we see commonly in the UK. The placement in Cusco was within a hospital called Adolfo Guevara Velasco (EsSalud), which serves only the working population and their families via a work insurance scheme. We were based in a Primary Care setting so mainly saw patients coming in either for regular checkups for chronic problems such as diabetes, hypertension and arthritic pain; those wishing to get regular repeat prescriptions; or those seeking referral into specialist care. These doctors, though based in hospital clinics, served a role much like that of a GP in the UK. In the emergency clinic, we saw patients who had booked urgent same day appointments, and most of these cases were upper respiratory tract infections, or patients with abdominal pain or musculoskeletal pain, or cheekily those who had run out of regular medication and needed repeat prescriptions (and they would be admonished by the doctor for using the emergency appointments in such a way, again not dissimilar to what we see in general practice in the UK!) We were interested to find out that gallstone disease was particularly prevalent in Cusco and we saw a case of a positive Murphy's sign in a girl of just 14 years of age. The doctor explained that this is due partly to the diet of the local people and also mentioned an increase in obesity and metabolic syndrome and of course diabetes, owing the poor diet and the growing trend towards fast food a.k.a comida rápida!

In the Hospital in Puerto Maldonado, as it was ward based we saw a different sort of patient compared to the clinics in Cusco. There were common conditions such as pneumonia, cancers, UTIs, diabetic complications, cellulitis but also illnesses like malaria and dengue fever which we do not see in the UK commonly unless related to foreign travel. The other difference was that we'd see patients at a more advanced stage of illness/disease compared to in the UK or more unusual presentations.

2. Health service provision in Peru

I was surprised to learn from the doctor that the average life expectancy is 75 for men and 80 for women (raised from 60/65 in the 1960/1970), which is better than I thought it would be. The doctor attributed this rise to the improvement of the economy. Access to healthcare is actually quite good, especially in populated areas. There are both public and private health insurance schemes. Within the public sector there are two main types. The first is called Seguro Integral de Salud (SIS) and run by the Ministry of Health (Ministerio de Salud or MINSA) and SIS provides public hospitals and health care for the poor through a health insurance scheme that only requires people to pay 10 Peruvian Sol per month (this is about £2.30 at current exchange rates).

The second type of public health provision is called EsSalud through the Ministerio de Trabajo (Ministry of Work) and is paid by deductions from salaries equivalent to 9% of wages. This

covers the employed person and their families for all their healthcare needs including medication. There are also separate provisions for other public work forces, e.g. Ministerio de Ejercito (for soldiers), Ministerio de Naval (for members of the Navy), and similar ministries for the airforce, and police force etc. Each of these sectors have their own hospitals and clinics, so for example someone covered under the Ministerio de Naval would go to a dedicated hospital, and not the EsSalud hospitals. There are a few large hospitals though, such as Hospital Regional and Hospital Antonio Lorena (both EsSalud hospitals in Cusco) who are mandated by MINSA to offer healthcare services regardless of insurance coverage. These hospitals are entitled to then charge the government a fee under their discretion for providing the service.

Finally there is private insurance for those who can afford it, or people can pay privately per consultation etc if they have no insurance.

Despite there being these provisions, there are many people who, due to their location in rural areas and in remote places like the jungle, simply don't have access to health services.

3. Health related objective: Dengue Fever

My original health objective was based on Obstetrics and Gynaecology but unfortunately I was not able to do a placement in this department while I was in Cusco. Instead I will talk about Dengue Fever which was the most common disease we encountered while in Puerto Maldonado which borders the Amazon Jungle. Dengue Fever is caused by a group of four related but distinct viruses and is transmitted by the Aedes mosquito. It causes a severe flu-like illness and in the worst cases lead to the potentially life threatening complication: Dengue haemorrhagic fever. Signs and symptoms include flushed or centrifugal maculopapular rash from day three of the illness, or late confluent petechiae with round pale patches or normal skin or headache, arthralgia jaundice, hepatosplenomegaly and anuria. Haemorrhagic signs and symptoms include petechiae, gastrointestinal, gum or nose bleeds. The problem with Dengue fever is that there is no particular treatment other than supportive care, nor is there any vaccination available. Patients suspected of having the disease are best off receiving supportive treatment in hospital with careful monitoring to ensure that any complications that may arise are treated promptly. Dengue haemorrhagic fever requires aggressive fluid resuscitation to maintain the patient's circulating blood volume, which greatly reduces mortality.

4. Personal/Professional development goals and reflective assessment of activities and experiences

My personal goal was to learn medical Spanish so that I have the possibility of practicing medicine in a Spanish speaking country in the future. Having gone to Peru with no understanding of Spanish at all, not even to a basic level, this proved very difficult! Our elective package included a Spanish tutor who gave us a total of 20 hours of individual Spanish lessons. At first I was frustrated at what I thought was my lack of progress but I soon realised that by the end of the elective I could understand most of the conversation between the patients and doctors and I was also able to follow what was happening on the ward rounds to a certain extent. When it came to me speaking, however, I was only able to introduce myself and say the

most basic phrases (sit/lie down, turn over, breath in, is there any pain... etc) and I also got really good at informing the patient of their blood pressure in Spanish, but taking a thorough medical history was beyond me! I'm still proud of what I achieved as I was completely clueless for the first couple of days and I saw a marked improvement over my time there. I hope to continue to develop my Spanish in the UK if possible!

Outside of the hospital in our Spare time, we got plenty of opportunity to explore the areas surrounding Cusco and also spent some time in Tambopata national reserve (part of the Amazon Jungle). My experience of Peru was truly amazing and I'm really please I was able to explore and learn about the culture and history of Peru, particularly learning about the Incas and pre-Incan cultures. It was also interesting to see some of the local methods for treating illnesses using naturally growing plants. One of the high points of the trip (literally!) was the Salkantay trek to Machu Picchu. This was a 5 day trek through all kinds of weather and terrain and reaching a peak of 4510m above sea level. One of the main problems encountered on this trail is altitude sickness, and it was very interesting to see how quickly the local guides acted when one of our fellow travellers fell ill. She was quickly taken back down the mountain to a lower altitude and we found shelter in a cave (from the rain and hailstones!) A fire was lit and she was warmed up and encouraged to put on more layers. They then gave her some matte de coca (tea made from leaves of the coca plant) which is a popular local drink that is particularly good at treating symptoms of altitude sickness. It is the same plant that cocaine is derived from! This little remedy did the trick and we were eventually able to continue up to the peak as planned.

Overall I had an amazing time during my elective and I will draw on my experiences from both medical and non-medical settings to improve my own practice in the future.