**Report on Elective Placement – Antonia-Olivia Roberts**

This year I was lucky enough to receive the RCPath/Microbiology Society grant, which enabled me to carry out an elective studying tropical diseases and rural primary care in Vietnam and Cambodia. I chose these countries because of my interest in tropical medicine and global health; both have a preponderance of infectious diseases rarely seen in the UK, and I was keen to understand medicine in resource-limited settings.

**Vietnam**

My Vietnamese placement was at the Department of Tropical Diseases at Bach Mai Hospital in Hanoi – the largest hospital in northern Vietnam. I started to notice contrasts with UK hospitals before I had even reached the wards – the site map listed areas such as the Viral Hepatitis Unit and the Poison Control Centre, highlighting the vast differences between common pathologies seen in Vietnam and the UK.

The hospital was extremely modern, with plenty of equipment and well-trained doctors. However, in Vietnam anyone can see a specialist without a referral. As a result, the hospital was packed. In outpatient clinics, three patients would wait in the clinic room whilst a fourth was having their consultation. On inpatient wards, there were a minimum of two patients per bed. Isolation measures were not strictly enforced; a room containing six patients with measles had the doors to the ward and windows open the entire time.

The most common presentation was sepsis of unknown origin. At first, I could not understand how so many patients were becoming septic without a clear source. Then I learnt that in Vietnam, steroid use is very common – either through people buying steroids over the counter for pain relief, or because steroids are an undisclosed ingredient in traditional herbal medicines. As a result, many people were immunocompromised. Antibiotic usage differed significantly from the UK, with many patients receiving broad-spectrum empirical antibiotics such as meropenem and vancomycin, due to local resistance.

Other common infections included hepatitis B (with a prevalence of around 10% in Vietnam) and tetanus. I was impressed to discover that each department had a dedicated ICU, and in the tropical diseases ICU were several patients referred from district hospitals with severe tetanus requiring NG feeding and ventilation. Often these were rural workers who had not received tetanus prophylaxis and had delayed presentations to hospital after work injuries. This made me reflect on how I take for granted the health literacy of patients in the UK, and the importance of working with local communities to prevent illness, rather than relying on tertiary care interventions.

**Cambodia**

I also spent four weeks in Cambodia with The Lake Clinic, an NGO providing healthcare to people living in remote floating villages on the vast Tonle Sap lake. Whilst at The Lake Clinic, I ran clinics with the help of Cambodian doctors and joined the outreach team to check water filters and educate on breast and cervical cancer.

The Lake Clinic is based in Siem Reap but runs expeditions each week to floating clinics in different villages. These villages are a four-hour journey away by minibus and boat. The lives of the villagers are deeply connected to the lake – everyone travels solely by boat, and the livelihood for the majority of the population is fishing. Many patients presented with fungal infections on their hands and legs, resulting from constant exposure to water and fish during the day. This highlighted the direct occupational impacts on health in a manner I have less commonly seen in the UK.

Villagers also rely on the lake for drinking water. Unfortunately, the lack of plumbing means the lake contains raw sewage; hence dysentery and taeniasis (infection with *Taenia* tapeworms) were common. Telling people to drink bottled water would be unrealistic, as using the lake has been their way of life for generations, and some consider the lake water to be cleaner than bottled. Instead, the clinic installed water filters in homes so people can filter the lake water. Through this, I learnt the importance of working with local populations to find mutually acceptable solutions to improve health.

The remote nature of the work provided many challenges, particularly in managing clinical risk. We saw several patients with moderate URTIs who, in the UK, might be asked to return if they did not improve in a few days. However, we only visited each village once every four weeks, so if we didn’t prescribe antibiotics then, patients would not receive them if their condition worsened. Sadly, in these situations, the principles of antimicrobial stewardship were often minimised, and many antibiotics were prescribed.

The long journeys to and from the clinics provided me with plenty of time to consider the broader socio-economic determinants of access to healthcare. To take one example, Tonle Sap is covered with a type of plant called the water hyacinth, which doubles in biomass every two weeks. This makes it extremely difficult for boats to get through and reach the villages. Normally, these plants wash away during the wet season. However, dams built upstream on the Mekong River in China have vastly reduced the flow into Tonle Sap. As a result, plant matter builds up, impeding transport routes and endangering the future ability to deliver healthcare to these villages. These dams are also increasing the spread of waterborne infectious diseases, because reduced flow from the Mekong concentrates the lake water and any pathogens present. This experience highlighted the importance of understanding local barriers to healthcare, rather than assuming that the reasons people are not receiving care can be generalised worldwide.

**Conclusions**

My elective in Vietnam and Cambodia gave me a profound insight into how infectious diseases, resource limitations, and local socio-cultural and environmental factors shape healthcare delivery in different contexts. It reinforced the importance of working collaboratively with communities to develop realistic, sustainable solutions that respect local ways of life while aiming to improve health outcomes. I am extremely grateful for the support of the Royal College of Pathologists and the Microbiology Society, without which this wonderful experience and learning opportunity would not have been possible.