

## Elective Report: Indonesia (Telo Island with Troppodoc)

As a doctor it is important to understand the culture, customs and beliefs of patients so I felt experiencing a new country was important. After a recommendation from a fellow medical student who visited Indonesia I decided to visit to Telo Island to help a New Zealand doctor and his organization Troppodoc.

My journey began in London Heathrow with fellow medical students Jenna and Ali. After celebrating passing finals, we said goodbye to rainy London and boarded the plane to Kuala Lumpur. Following sightseeing and sampling local delicacies such as frog porridge we flew Medan and then to Gunug Sitoli and then caught a six hour boat journey to Telo Island. Telo has a 14 km circumference and is inhabited by 6-7000 people. It is one of 101 islands that make up the region called 'Pulau Pulau Batu' which is just off the coast of Sumatra. The region is stunning, surrounded by crystal clear water. The climate is stable, it's 35° in the day and 35° at night, it was a challenge to adapt and acclimatize at first. It was important to maintain adequate hydration. We were able to buy bottled water in local shops; however, at times we visited remote areas where this wasn't possible. The local people collected water from wells. They believed they should boil it for five hours to kill bacteria. The excessive boiling diminished the supply meaning each member of the family only drank 1 cup a day. Dehydration, dizziness and headaches were a common complaint as well as constipation leading to faecoliths, appendicitis and gallstones. Dr Allen educated us with the WHO's recommendation that local well water can be processed for drinking by placing clearwater in 1L bottles in the sun under UV light for five hours. We also bought chlorine tablets.

Local food consisted of rice or noodles with freshly caught fish, meat and vegetables. The food was well prepared and it cost us around 60p for a full meal out. It was interesting to see how deep fried bananas and western biscuits were also being sold. We were told that diabetes was a growing problem.

We stayed in a local 'Wisna' (translation meaning 'Inn'). It was basic with no running water and cost around £7 a night. We bought mosquito nets, as mosquitoes carrying malaria and dengue were prevalent in the area. We also took malaria prophylaxis (malerone), readily applied deet, and burnt mosquito coils. Although we were in a beautiful area we were warned about potential natural disasters such as earthquakes. There was a nearby hill, which we were advised to run up if anything happened. We were also warned about personal safety and advised to keep our passports and money on us. We did

not run into difficulties and found the local people incredibly friendly. Everywhere we went we were watched by inquisitive, smiling locals and children who would often run from inside their houses to greet us, excitedly shrieking 'Hello Miss'. Tourist visits were rare on the island and everything we did was watched and observed. It was important to carry out good health promotion constantly. This included brushing our teeth and burning mosquito coils (which is sold locally and cheaply) in view.

The local language was Nias (and the language of Indonesia is Bahasa). I did find the language barrier an issue. The religions on the island included Christianity (both Catholic and Protestant) and Muslims. It was important to make sure we were dressed appropriately and covered our shoulders and knees. Women would tend to marry around the age of 25 years and have between 4 to 6 children. Jobs included harvesting the land, teaching, shop keeping and fishing. There were a number of fish farms. The average wage was around 30,000 rupiah a day (around £2.10). This meant that travel and health care were hard to afford.

6-7,000 people inhabit Telo Island. The local life expectancy is 55 years. Common causes of death in the elderly include stroke, cardiac problems and infections. Unfortunately there is a relatively high rate of death in children due to infections such as malaria and TB. Common presentations of chronic conditions in clinic included high blood pressure, diabetes, arthritis and COPD due to smoking. Common acute problems included infections, which varied from colds to tropical diseases such as malaria, leprosy and TB, as well as traumatic or accidental injuries, headaches and a multitude of rotting teeth. Common paediatric conditions included infections, infected mosquito bites and coughs.

There are three small hospitals on the island; a Catholic, Protestant and Government hospital. There are three doctors overall. The Government hospital only employed two nurses. Available investigations included x-rays, ultrasound, blood tests and microscopy. There is no available surgery. Patients needing surgical intervention have to travel to Medan or Gurung Sitoli. This can be expensive and medical care in these areas is not as efficient as some western hospitals. Patients are charged and if complications arise and they can't afford to pay care is withdrawn and they may suffer severe health complications or even die. There is a strong culture of family tradition to be buried in family land as it is regarded as important to maintain strength for future generations. The cost of flying bodies back to Telo is expensive and therefore seeking treatment and facing adverse complications is a fear to many subsequently causing many medical dilemmas. There are no dental facilities on the island.

Dr Derek Allen is a New Zealand Doctor. His first experience of medicine was at a young age helping poor, ill people in Africa. His dream was to extend this work and help less fortunate people in remote areas with poor access to medical facilities. After hard work to get into and through medical school he

still firmly maintained his dream and has put it into solid practice. He was first drawn to Indonesia after the tsunami 2005, and helped people rebuild their lives by providing free medical care. After treating a local man's wife, the local man repaid Dr Allen's kindness by building him a clinic on the back of his land overlooking the sea. Here, Dr Allen is able to store his equipment and medications and have an area local people know they're welcome for medical attention. Dr Allen also employs local health promotion schemes. He has educated a local man who now teaches children in schools about hygiene, oral health care and maintaining fluids. He has also installed purifying rainwater collecting water tanks in the local schools. He also promotes smoking cessation and encourages immunisation programs, as many local people do not believe in injections as they think needles introduce demons into the body. He performs tooth extraction, as dental hygiene is very poor, leading to multiple rotten teeth. He even performs surgery if necessary including mastectomies, amputations, appendicitis extraction and removal of lumps. If he feels a presentation is out of his capacity he refers patients to doctors or surgeons in Medan or Gunung Sitoli and will even help accompany them there. He is also a trained helicopter pilot so can access remote areas.

We spent the weekends running the clinic on Telo Island, and the weekdays on a remote island called Tana Masa (in an area called Bulutu.) This island is inhabited by 12-15,000 people and is around 40 km long. There are no doctors. The daughter of the chief of the village graciously welcomed us, (as the chief was currently away). She let us set up clinic in her front room and provided sleeping mats and pillows. We brought our own food consisting of noodles, chilli, garlic, shallots and cucumbers and cooked in the kitchen at the back of her house over an open fire powered by coconut husks. I learned that alcohol gel is also an amazing inflammatory stimulant and can help start a cooking fire! We woke around 6:30am and started our clinic. Everything happened earlier and finished earlier due to the intense heat in the middle of the day and the fact that it got dark around 6:30pm. There was one electric light and no other power sources.

Dr Allen encouraged us to get totally involved and we were allowed to carry out the clinic taking histories with the help of a phrase book and a volunteer translator from Australia. Examining, investigating, diagnosing, managing, explaining treatment and health promotion to each patient under his supervision was encouraged. Examples of patients we saw included people with headaches and dizziness, COPD due to a long-term smoking, and injuries such as infected cuts. We used a needle and syringe to drain the pus after injecting liquid anaesthetic and then washed the wound with iodine and dressed it. We also provided a course of oral antibiotics. We saw a number of children. These included a two year old presenting with fever and weight loss who had an enlarged spleen. We diagnosed malaria and started a course of chloroquine and fansidar and encourage the mother to bring him back. The fourteen-month-old baby of the chief's daughter had a cough, pyrexia and was on the fifth centile for weight. On examination he had tachycardia and inspiratory crepitations throughout the left lung. Dr Allen was worried about

the possibility of TB as it is prevalent in the area. He persuaded the mother to travel back to Telo with us on the boat for an x-ray and Heath/mantoux test. We had bought a big supply of equipment and medication with us. If we did not have something we encourage people to return next week when you returned and had stocked up.

When we were in the Telo clinic we were encouraged to learn new skills. We took out stitches from a child who had had a cleft palate operation. We also saw, examined and managed some chronic conditions such as hypertension as well as acute presentation. We treated a man malignant hypertension with a blood pressure of 225/115, heart rate 76. We gave tramadol 50 mg over one minute and then reject his blood pressure. It gradually reduced to 150/95. We started long-term filodipine 5 mg once daily and gave smoking cessation and dietary advice. Dr Allen's aid organization 'Troppodoc' is now an established charity accepting donations especially medical supplies. I learned the importance of resources and being as resource and non-wasteful as possible while still maintaining a safe practicing environment. Sometimes we would not have the 'first line' medications available so second or third line maybe which would be better than none.

Although the average life expectancy is younger than in the developed world cancer was not an uncommon presentation. I saw a young 33-year-old lady with a hard craggy mass in her left submandibular area that had been growing for 3 years. Possible diagnosis included TB or lymphoma but it was likely to be a benign growth as she was clinically very well.

Investigation available at the clinic included BP measuring, urine dipstick, blood glucose measuring and oro/oto/opthalmoscopes. It meant that it was a great place to develop our examination skills, as we could not rely as heavily on investigations as in England. The challenges included the language barrier but we learnt as much Bahasa as possible.

Overall I thoroughly enjoyed the placement. I felt my confidence in examination, diagnostic and management skills improved. I was able to develop new skills in medicine such as taking out stitches, injecting local anaesthetic and even tooth extraction. We also learned about the political climate, culture, cuisine and ways of living. I would highly recommend working with Dr Allen in the future. He carries out similar work in other countries December-February in Vameutan; March-May in Indonesia; June-August in South America and September-November in West Africa. I was impressed with the hands-on yet supported environment and hope to repeat this experience in the future.