A working holiday in Cambodia

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Last year, when the Trust announced the MAFS scheme, I decided to request 12 weeks' unpaid leave to do something different. When I learnt that Angela Oxley, a former head of midwifery at University Hospitals of Morecambe Bay, was in Cambodia working for VSO it seemed like an ideal opportunity to combine an exotic holiday location with a taste of working in the Third World as a volunteer. Angela wasn't sure that there was much work there for an anaesthetist, but the Provincial Health Director and Hospital Director gave their permission and it was arranged. I left Heathrow on 8 January to arrive in Phnom Penh in 30 degrees heat.

Cambodia is rebuilding itself after many decades of civil war and the atrocities of the Khmer Rouge, brought to the attention of the Western World in the film 'The Killing Fields'. The people are fantastically friendly; they have adopted technology such as mobile phones and motorbikes whole heartedly, but in many other ways they are decades behind. The government has shown a commitment to improving the population's health and in 2011 the health budget was \$181M, compared to \$50M in 2007. This equates to a spend of \$2.96 per head. The central funding is supplemented by a user fee and there are numerous charitable organisations (widely called NGOs) who also contribute to the provision of healthcare. However, the majority of healthcare episodes occur in the completely unregulated private sector and poorer people in rural areas may turn to the traditional healers in their villages. Certain national programmes are government funded and drugs and other treatment are provided free. These include programmes for malaria, TB and HIV/AIDs.

Stung Treng is a sparsely populated rural province in the northeast of Cambodia and is rarely visited by tourists unless they are heading for the Laos border. It has a population of 104,000 spread over 11,000km², which equates to a population density of seven per km². Stung Treng Referral Hospital is the only hospital covering the province, but there are also health centres in the rural areas which provide some healthcare. Women can attend the health centre for ante-natal care and

Stung Treng Hospital, note Unicef baby-friendly award

deliveries, but if they develop complications or need a caesarean section they need to be transferred to the hospital. Many of the health centres are two to three hours' drive on dirt roads in the dry season, which become impassable in the wet season.

Stung Treng Town is at the junction of the Mekong and Sekong Rivers. It is obvious that the river is the lifeblood of the community providing drinking water, irrigation for crops, freshwater fish and a means of transport for many.

Stung Treng Referral Hospital has six doctors, none of whom have undergone postgraduate training to become a specialist. One of the doctors, who used to be the general surgeon but is now covering maternity, performs all the general surgery in addition to caesarean sections and gynaecological emergencies. During my stay, another doctor was sent away on a three-month training course. When he comes back he will be qualified to do surgery, including caesarean sections. Anaesthetics are given by two nurse anaesthetists, who

The difficulties of travel are clearly illustrated

underwent a two-year training programme about ten years ago. Most of the doctors and nurses undertake what is called dual practice. So, as well as working in the government hospital they also work in private medical clinics.

Cambodia statistics (from Cambodia Demographic and Health Survey, 2010)

Estimated population	14.7M
GDP per capita	\$200 (cf Thailand \$4,416)
Life expectancy	62.7 years
Maternal mortality rate	220 per 100,000 live births (down from 437 in 2000) (UK = 13)
Infant mortality	66 per 1,000 live births (UK 5.4)
Under-five mortality rate	83 per 1,000
Adult literacy	male 85%, female 64%
Households with safe drinking water	urban 72%, rural 40%

ថ្លៃការប្រតិបត្តិវះកាត់	
~ វះកាត់ធំ	: 320.000 ៛
~ វះកាត់មធ្យម	: 200.000 ៛
~ សំណាកព្យាបាល	: 50.000 ៛
រាល់ការបង់ប្រាក់ អ្នកជំងឺត្រូវទទួលបានបង្គាន់ដៃបង់ប្រាក់ ១សន្លឹក ៣០០០៛ ប្រសិនបើគ្មានបង្គាន់ដៃបង់ប្រាក់ទេ ចាត់ទុកការបង់ប្រាក់នោះ ក្រៅផ្លូវការ	

At an exchange rate of 4.000 to the US dollar, the hospital has a tariff for minor, intermediate and major operations

The hospital day starts at 8.00am with a meeting chaired by the Director, who is one of the doctors. We often hear about patients who have run away without paying, how the hospital needs to increase its activity to bring in more money and how the hospital has run out of essential supplies such as sterile gloves, oxytocin or sharps containers. The doctors each then do a ward round of their particular areas and the nursing staff undertake things like dressing changes. They will all be there until about 10.00am. After 10.00am, most staff go off to their private clinics or other jobs and the hospital is left with minimal staff who are 'guarding'. So there will be one nurse covering the surgical ward, one covering medicine, and two midwives. One doctor sees all the admissions in A&E and any patients on the ward or in maternity who have any problems, and calls in surgeons as appropriate from their private clinics.

The staff have a very complicated salary system; they are paid a basic wage (very low) and then they are paid a proportion of the user fee. So, if there are more patients they get paid more and they will be paid if they are called in to take a patient to theatre. Everybody seems to be on call seven days a week, unless they are out of town – the week that the

surgeon was in Phnom Penh on a training course there weren't any operations. One lady needing a caesarean was transferred to Kratie, the nearest hospital, which is three hours' drive away.

Patients do not get provided with food whilst in hospital; they rely on their relatives to bring in food for them. They also have to provide their own sleeping mat and bedding.

When I first arrived, I joined the doctor doing ward rounds on ICU. It is not really what we would consider to be ICU, more like our current Medical Admission Unit, a ward where sicker patients, adults and paediatric, go for the first few days after admission. In ICU they might get oxygen and have their observations done more than once a day. Apart from that, it doesn't have any more facilities than any of the other wards. It quickly became apparent to me how difficult it is to practise medicine with such limited facilities.

One patient, in his 60s, was admitted with *pneumonia grave*. (Medical terminology is French, reflecting the region's colonial past). He was treated with antibiotics, frusemide, salbutamol, steroids and also hydralazine, because his blood pressure was raised. After a few days, he was better but still had a heart rate of 130/min. I suggested we do an ECG. *Ot mian* – don't have. Put the monitor on? *Ot mian* electrodes. We decided to add in digoxin because clinically we suspected atrial fibrillation. A few days later his heart rate was 78 but there is no system to ensure that anyone continues to take longterm medication once they leave hospital. Malaria, at least, as a diagnosis comes with facilities to test for it and the advantage of government backing for free medication and clear guidance on treatment. The laboratory is able to do an FBC, screen for malaria and TB and cross-match blood. They have a machine for measuring urea and electrolytes but it hasn't worked for several years. Either the reagents were used up or it broke and no one knows how to fix it. It is a world away from ICU in the UK, where we measure blood gases and other variables several times a day. Another common diagnosis seems to be *hypoglycaemia*, usually when patients present with dizzy spells. Treatment is either 10% or 50% glucose but they have no means of measuring blood sugar.

Imaging facilities are very limited. There is a basic X-ray machine and two ultrasound machines, but no radiologists. The doctors perform ultrasound for obstetric patients or patients with abdominal pain, but the surgeon told me that he had not had any formal training. Ownership of an ultrasound machine is a major advantage when it comes to attracting patients to your private clinic.

I think the standard of medical care is probably significantly better in the capital, Phnom Penh, but VSO would still send their volunteers to Bangkok in Thailand if they were seriously ill.

In my first week, I saw two operations for appendicitis, both performed under spinal anaesthesia supplemented with diazepam and fentanyl. I also saw two caesarean sections and removal of a bladder stone – also done under spinal anaesthesia. They have a new anaesthetic machine, made in China (Chinese influence is everywhere, whether that be with medical equipment or civil engineering projects). The only time I saw the Chinese anaesthetic machine used during my first month was for a laparotomy for abdominal trauma in a young man who had been crushed by a tree. I'm not sure that they found anything significant in his abdomen but they took out

his appendix and he made a good recovery. The anaesthetic drugs were familiar but limited and monitoring consisted of continuous pulse oximetry and intermittent non-invasive blood pressure only. I have used Halothane in the past, but felt very uncomfortable initially not having end tidal CO₂ or anaesthetic agent monitoring.

The tourist may get no further under the skin of Cambodia than the magnificent temples

Life changed its pace in February with the visit of Dr Heng. Dr Heng is Cambodian but went to France in the time of the Khmer Rouge and worked there as a surgeon for over 30 years. He is now retired and spends time in Cambodia helping out at hospitals like Stung Treng, where the surgeons have limited experience. In three days of operating he did eight thyroidectomies, a hysterectomy for fibroid uterus, two paediatric hernias, two adult hernias, a large hydrocele, an appendectomy and incision and drainage of an abdominal wall abscess. It was a bit like a normal week's work in the UK, but we still had to have the obligatory three-hour break. After three days, all the surgical beds were full and we were starting to run short of basics like syringes. For a while the surgical ward rounds took a bit longer than normal, but there were no postoperative complications and a week later we were back to our usual mixed bag of appendectomies, minor motorbike accidents and head injuries in people who had fallen out of trees or had had trees fall on them.

Practising medicine when you cannot understand what your patients are saying presented another challenge. I employed a

Intravenous infusions were commonly seen in patients in the street, it seems as though historical carvings showed the same!

part-time translator, Channa, and luckily some of the nurses speak reasonable English. I was surprised how comfortable I felt in the operating theatre. Despite not being able to understand most conversations there was obviously still the usual operating theatre banter and I felt quite at home. One major difference was that the patients weren't always treated with the same level of respect and concern for their dignity that we would expect in the UK and often ended up hypothermic at the end of the surgery – the operating theatre was one of the few places with air-conditioning and it was kept far colder than necessary. I had been asked to encourage the use of the WHO 'Safer Surgery Checklist'. That proved difficult due to some major differences in practice; there didn't seem to be a consent form, patients don't wear a wristband or other identifier; they don't count swabs and instruments and there is a very definite hierarchy with the surgeon very much in charge! I asked Channa to translate the checklist into Khmer and left it with them to think about!

Looks familiar? The same messages about infection control. Harder to comply with when there are no sinks in the wards and rarely soap

I had an interesting experience while I was visiting the hospital in Battambang. This is a larger town in the northwest of Cambodia, and VSO has an A&E consultant placed there who was showing me around. The northwest is an area more frequently visited by tourists and there is a much higher level of international NGO input into the hospital than at Stung Treng. A delegation from an NHS Trust was visiting the hospital with the aim of establishing a partnership relationship between the two hospitals. The hospital Director had omitted telling the VSO volunteer doctor, Ester, about the visit, surprising because after being there for a year she might have some ideas as to how such a relationship could be useful. We contrived to intercept the visitors in the hospital grounds and found that the visitors were the Chief Executive, Medical Director and Head of Nursing of a Foundation Trust in the northeast of England. They seemed a little surprised to find an English A&E consultant working there, but agreed that it would be very useful for them to be in touch. I will be interested to know whether the venture proves successful in the longterm, and on what terms the staff will be visiting and sharing skills. Spending time in the hospital in Stung Treng gave me a big reality check; how lucky we are to live in the UK and to have our not perfect but amazingly good NHS.