Part 1: Anaesthetics and Intensive Care in Prince of Wales Hospital, Hong Kong

Objectives:

- To learn and contribute to the anaesthetic management of surgical and critical care patients
- To compare and contrast the healthcare in Hong Kong and Oxford, two similarly well-developed areas with different patient demographics
- To gain experience interacting with patients in another language

I spent the first half of my elective in Prince of Wales Hospital, located in New Territories, a suburban area of Hong Kong. This is a modern public tertiary hospital serving a wide catchment area and had state-of-the-art facilities much like the John Radcliffe in Oxford.

Our first two weeks coincided with CUHK medical students’ Anaesthetics rotation, so I was able to participate in interactive teaching given by senior anaesthetists over a wide range of topics including local anaesthetic properties, pre-operative assessment and peri-operative pain management. Integrated with lectures were practical sessions, where we learnt to intubate plastic models and conduct bedside echocardiography on each other. Over four weeks I was encouraged to attend theatres to observe a variety of anaesthetic procedures, including numerous regional blocks using ultrasound-guided and train-of-four nerve stimulation techniques. I particularly enjoyed obstetric anaesthesia, an area which is only recently being transformed by evidence-based medicine, where I was able to observe an ongoing study comparing use of vasopressors during Caesarian section. I was impressed by the theatre facilities – all doors were automatically operated by foot pedal; changing rooms had lockers and shelves of clogs especially for visitors to use; they even provided personal headphones for patients undergoing procedures awake.

I spent a few days in the Intensive Care Unit, observing how patients are admitted, managed and discharged, and how the unpredictability of emergency events requires anaesthetists to always be on their toes. One calm afternoon suddenly transformed into a flurry of organised chaos as a tracheostomised patient arrested, and was brought back to a stable state with some difficulty by the teamwork of anaesthetists, ICU nurses and ENT surgeons. The effectiveness of multi-disciplinary cooperation was evidenced throughout my placement, whether it was deciding when to withdraw life support in ICU, or addressing pain in an outpatient setting. As part of the attachment I was able to shadow the pain team on acute ward rounds and observe outpatient pain procedures and clinics in the neighbouring Nethersole hospital. I was interested to discover that while most procedures involved injections of local anaesthetic, dry needling alone was often sufficient to produce analgesic results for muscle pain. Social situation was often a key contributing factor, and the pain clinics were attended by a psychologist and community nurse as well as an anaesthetist; I believe patients benefited greatly from this holistic approach.
The range of patient conditions in Hong Kong shared some similarity to the UK with a growing incidence of chronic diseases such as COPD and cancer, but differed in infectious disease. I saw a greater proportion of TB, Hepatitis B and influenza, as well as periodontal disease, ketamine abuse and Moya Moya (a rare arteriovenous malformation). Infection control differs immensely from the UK: strict regulations govern aerosol-transmitted infection risk, an after-effect of the disastrous SARS outbreak over ten years ago, with a blanket ban on nebulisers and Venturis and mandatory use of N95 respirator masks when interacting with ‘at-risk’ patients. The general public are also obliged to wear simple surgical masks if they have any cough or cold symptoms, and there are vending machines exclusively selling these masks in most public places. On the other hand, contact-spread infection control seemed fairly relaxed – no bare-below-the-elbows, fewer alcohol gel stations and beds in the corridors were a frequent feature of overcrowded wards.

The healthcare system in Hong Kong is both public and private, but doctors cannot practise both simultaneously, and the public system does not really extend to primary care. Unlike the UK, patients are not automatically registered to a GP by location, and must pay for individual consultations. As a result, many patients ‘shop’ for family doctors depending on their reputation by word-of-mouth, some turn to traditional Chinese medicine, and the rest flock to A&E where the wait time can stretch from several hours to days. The prevalence of patients on traditional Chinese herbal medications is high, perhaps unsurprising as many people speak only rudimentary English and cannot remember Western drug names (which currently have no Chinese equivalents), and instead put trust on notions that have been passed down to them through the generations, supposedly tried and tested for thousands of years. Consequently, doctors in Hong Kong have a greater tolerance for herbal medicine than the UK, although they are not unused to treating patients taken ill by these remedies – coagulopathies in particular are not uncommon. As the regulation of traditional Chinese medicine and their practitioners is improving, doctors and herbalists now correspond and work with each other to optimise patient healthcare.

Part 2: A&E and Anaesthetics in Sarawak General Hospital, Borneo

Objectives:
- To learn and experience first-hand the variety of pathology found in the South East Asian population, particularly tropical infectious diseases.
- To critically evaluate healthcare in an area with limited medical resources

The second half of my elective was at Sarawak General, a public hospital in Kuching, the capital of Sarawak province in Malaysian Borneo. My time was divided between the departments of A&E and Anaesthetics.

The A&E department was organised similarly to the UK, with colour-coded green, yellow and red zones corresponding to ‘minors’, ‘majors’ and ‘resus’, with some differences due to limitations in government funding. The triage area was basic in the form of a counter overlooking a pavement where doctors could lean out with their stethoscope and assess patients, while the ‘minors’ area lacked privacy and consisted of two large desks with a patient sat at each corner. There were few nurses, with doctors doing all
observations and investigations themselves, with equipment such as thermometers and ECG machines being reused without their disposable parts nor washing between patients. All notes were paper based with no computers in sight, and doctors still used actual films for X-ray and CT instead of electronic images. Despite the lack of resources, wait times were surprisingly good at an average of 15-30 minutes, and measures had been implemented to improve efficacy – there was an additional ‘asthma bay’ with rows of nebulisers to facilitate treatment of asthma patients, and Full Blood Count and Urinalysis machines were immediately accessible, reducing the need to wait for the equivalent lab results. I spent time clerking new patients in A&E, attending ward rounds and observing clinics, which despite the language barrier were fascinating in terms of patient demographic. Dengue cases were relatively common, and exotic parasitic diseases were not infrequent, due to a greater proportion of people with unusual dietary habits such as ingesting snake meat. I also saw a number of rare paediatric conditions such as retinoblastoma, cryptophthalmos and mucopolysaccharidosis.

In anaesthetics, I was able to take a more hands-on approach and gained experience with bag-mask ventilation and inserting guedels and laryngeal mask airways (LMA). The anaesthetists gave me on-the-spot teaching, such as when to use LMAs over endotracheal tubes (ETT), and choosing between muscle relaxants for rapid sequence induction, which I observed. Interestingly, in both Borneo and Hong Kong induction rooms are available but anaesthetists choose to induce anaesthesia in the operating room – perhaps saving time but increasing the risk of minor accidents, as in one case of a paediatric patient where the father watching the induction knocked over a tray of anaesthetic equipment. As with A&E, equipment is reused, although LMAs and ETTs are at least washed first. The approach to patient identification is as relaxed as with hygiene and infection control - while there is awareness of the surgical WHO safety checklist it was rarely implemented, nor do patients wear identification wristbands. A colleague confirmed that this is the case even with new-born babies in the delivery suite!

The healthcare system in Malaysia is predominantly public, with a small registration fee (equivalent to 20p) and additional fees for procedures dependent on nationality and whether or not you are a government employee. The consensus among doctors were that private hospitals provide much better care than public ones, as the government chooses to spend relatively little of its collective wealth on public healthcare.

**In conclusion**
My elective has been eye-opening, and I am grateful to have fit in two great experiences, one in a well-developed region where I speak the local language, and another in a multi-cultural developing country with limited medical resources. In both places the doctors I encountered were knowledgeable and professional as I would expect of those in the UK, but had to work with different healthcare systems and different sets of social and political challenges. It is apparent that there will be obstacles to healthcare provision wherever you are, and I find it remarkable that in ever-challenging and demoralising conditions whether in Hong Kong, Malaysia or the UK, doctors still strive to provide the best care for patients.

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