ACCIDENT + EMERGENCY

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**SSC 5c (Elective) Report:**

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Borneo is the third largest island in the world and home to 3 countries – Malaysia, Indonesia and Brunei Darussalam. The island is largely covered in impenetrable rainforest and as such has a small population relative to its massive size. Sabah, located on the northern tip of the island is the second largest but poorest of all Malaysian states, with a diverse population of around 3 million that includes indigenous Malay people (e.g. Kadazan and Bajau) and a large number of Chinese migrants [1]. Poverty, insufficient health education and difficult terrain all contribute to the difficulties in healthcare provision in Sabah compared to the mainland, and indeed to Western Europe.

By far the most frequent complaints that patients presented with during our elective were hypertension that was classified as either "urgent" (very high but asymptomatic) or an "emergency" (symptomatic) and cardiac chest pain. This reflects the leading causes of mortality in Sabah – cerebrovascular disease accounts for 7.4% of all deaths while ischaemic heart disease is in second place at 6.8% [2]. This is similar to mainland Malaysia, although there pneumonia pushes heart disease into third place. The number of patients we saw in the emergency department with systolic blood pressure measurements greater than 180mmHg was shocking, with several admissions per day. It is not uncommon for people to suffer large strokes as young their 40s. The prevalence of cerebrovascular disease and ischaemic heart disease is not much out of keeping with the rest of the world. Here in the UK circulatory disease still sits just ahead of cancer as the most common cause of death [3]. Interestingly, cancer is nowhere near as prevalent in Malaysia as it is in the UK, with the most common neoplasms (those of the trachea, bronchus and lung) accounting for only 2.2% of deaths. I was told that nasopharyngeal cancer is very common in the people of Sabah. The reason for this is unclear but some postulate that it might be related to the large amounts of dried, salted fish that are consumed (one could perhaps assume that this also could be the source of their hypertension problems, too). Despite these statistics the life expectancy in Sabah isn't as low as I thought it might be, at 76.8 years for men and 79.4 years for women [2], compared to 77.9 years and 82.0 years respectively in the UK [3].

The third highest cause of death in Sabah is septicaemia, and again this reflects the admissions we saw. Deaths from infectious disease are actually very low in number in the UK [3], perhaps due to strict infectious control, the surviving sepsis guidelines, access to many antibiotics and an excellent primary care network. It was not uncommon to see people coming to the department extremely sick (i.e. tachycardic, tachpnoeic and hypotensive) with severe bouts of tuberculosis and pneumonia. In the UK it has been my experience that patients might present with a cough and a fever rather than being very unwell. High numbers of deaths from infectious disease is a hallmark of a low income country, giving Sabah a health picture that lies somewhere between the problems of the rich and the poor world. Trauma was another common cause of admission, with poor road safety usually being the causative factor – most days someone presented having been hit by a car, which is thankfully a relatively uncommon occurrence in the UK.

The structure for health provision in Malaysia has proved a little bit complicated to grasp. Some doctors we asked said that all public health-care was free, while others suggested that there was a ceiling on how much care one person could have before having to foot the rest of the bill themselves. However, it was rare for this money ever to be chased should a patient owe a hospital. From our prospective in the emergency department, all care appeared free at the point of need. There is a co-existing private healthcare system which is popular among wealthier people in more urbanised areas. There is a primary and secondary system of care which mirrors that of the UK, and indeed most of the patients we saw had a GP. However, some places are very remote and it is hard to get access to good medical care in Sabah outside of Kota Kinabalu. Doctors must do 3 years of training in a centre such as Queen Elizabeth and be ready after this to work competently in areas which lack resources and may be distant from a hospital. The remit for an SHO level doctor on Borneo far surpasses that of one in the UK as far as procedural and surgical skills are concerned.

In terms of public health issues, lack of patient education is by far the biggest problem. Infectious diseases cause also a huge disease burden, which is obviously different to the UK. Malaria, dengue fever, leptospirosis and heptatitis A are all common and are managed without the need to involve an

infectious disease specialist (there is only one such doctor in Kota Kinabalu, and he only appears to see HIV patients). Mortality could be reduced by teaching the public to recognise these diseases early, to maintain good hygiene and seek medical attention appropriately. The doctors in the emergency department said that despite the availability of medications many people do not adhere to them. This is a major contributing factor in the amount of uncontrolled hypertension and prevalence of cardiovascular disease. Again, better education might help people understand that they must take cardioprotective and anti-hypertensive medication even though they might feel well. Issues relating to high rates of smoking and a high salt diet also need to be tackled by public health initiatives. Health and safety should also be given a higher importance as there are significant levels of trauma which could be prevented in the workplace and on the roads.

Overall, our trip to Sabah was very eye opening in terms of health care. There are many similarities in the way in which people are dealt with in hospital, for example clinical notation is the same and the doctors use many British guidelines. I sense that it must be frustrating for them to have these guidelines but not the resources to always give the best care that the evidence suggests is required. This has made me very grateful that we live in a resource-rich country where the NHS provides us with healthcare that is not only free at the point of need but also of a world-leading standard. The doctors were very knowledgeable and excellent at diagnosing people based purely on the clinical picture – for example a junior doctor that I was shadowing diagnosed a stroke in someone who was hyponatraemic and leaning ever so slightly to the left. A CT scan later confirmed the diagnosis. It is important that we do not rely purely on imaging but remember to form as good a clinical opinion as possible rather than waiting to see what the tests show. Unfortunately patient dignity is not upheld as strongly in Sabah as it is in the UK, which is a shame. I feel like the doctors had enough time and resources to do more in this way for their patients but it was perhaps just not expected in their culture. I am glad that the UK system is moving ever forward in respecting patient choice and autonomy when other countries still work on a very paternal doctor-patient relationship.

**References**

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