

ELECTIVE (SSC5b) REPORT (1200 words)

A report that addresses the above four objectives should be written below. Your Elective supervisor will assess this.

1 Describe the pattern of chest pain and acute coronary syndrome in the population of Tokyo, Japan and discuss this in the context of global health

Chest pain seen in a private hospital such as Jikei does not show the same predominance of cardiac etiology that is seen in the West. In the past four weeks, the common presentations that arrived through the door of the Emergency Department do not include ACS. This may be explained by lifestyle choices made, and although Japan has one of the lowest rates of mortality due to ACS worldwide (1), the prevalence of other diseases relative to cardiovascular presenting complaints is more significant. A patient coming in with chest pain is more likely to be respiratory in the form of an asthma exacerbation or a gastrointestinal problem like GORD. Cardiological presentations, in an ageing population such as Japan, are reserved for congestive heart failure and arrhythmias such as AF, SVT or symptomatic bradyarrhythmias. Another disease seen in more elderly populations include calcific valvular disease, which presents as cardiac syncope and palpitations over any chest pain.

With the rise of dyslipidemia, hypertension, and diabetes mellitus as metabolic syndrome has a foothold in Western societies, this has not happened in Tokyo, or Japan by extension, to the same extent. With Japanese food being authentically healthy from its sushi to its ramen, the grip that fastfood chains have had on this country, while prevalent, has not extended or affected the population in the same way. The pattern of ACS in Japan is largely related to the cultural preventative measures that include regular exercise in the form of walking, such that medication such as statins or nitrates are not needed in the primary prevention phase. That being said, thrombogenicity is still a recurring issue in ED, with ischaemic strokes being, in contrast, a more common problem than ACS. This may also tie into the social determinant of recreational drugs, specifically smoking as a common aspect of the working life here, thus leading to endothelial dysfunction. PVCs and AF may also be underlying causes for embolism whilst going by Virchow's triad thrombophilias are less common here.

2.

Describe the pattern of health provision in Japan in contrast to that of the UK

The structure of healthcare in Japan is dramatically different to that of the UK. In the UK primary care is separate whereas in Japan, primary care is part of secondary care. That is, GP surgeries do not exist the same way as in the UK and are merged with emergency medicine as minor presentations. In addition, Japan's emergency presentations are split into three categories: levels 1, 2, and 3 in descending order of severity, which is shared with the UK. However, the UK's qualitative categorisation of Resus, Majors and Minors that compartmentalises the British ER is unique whereas in Jikei, the ER is homogenised with 13 beds accommodating for patients from classes 1-3. Certain beds are allocated to particular specialties, dividing the bays up by internal medicine, O&G, and paediatric presentations. Both systems use the 1-5 classification system, but the structural organisation of each is different.

Another massive difference is the proximity of the resources and specifically, investigations. Gone are the need to request for CT scans, which is not a limiting factor in the management of patients in Jikei. This is partly because ED have their own CT scan adjacent to all the beds. X-rays are an afterthought depending on the presentation, and every internal medicine patient is given a CT scan given the low threshold, and that Jikei is a private hospital. UK is understandably more conservative and stricter with who gets a scan,

with a strong clinical reason being required for the radiologist to authorise it. On top of this, the practical skill set as a registrar equivalent and consultant in EM seems bigger than in the UK. Senior doctors are trained to read CTs and operate echos, with the latter only being optional for EM physicians if they complete a separate course. It is true that, unlike even US doctors, Japan's EM junior doctors or interns are more similar to the UK's hands-on workload whilst also retaining the academic ladder that the US healthcare system prides itself in. It's natural for head of departments in Japan to all be professors progressing their craft, whilst in the UK, consultancy is the most common ceiling of clinical medicine.

To evaluate the impact of public health initiatives and lifestyle differences on the risk factors of acute coronary syndrome in Japan.

Japan is a landscape shaped by unique cultural and healthcare practices. The country's public health system pushes preventative care and community health. Initiatives promoting smoking cessation, healthy eating, and regular physical activity are key to reducing ACS risk factors. This is combined with the traditional Japanese diet, rich in fish, vegetables, and soy, and low in red meat and saturated fats, contributing to lower cardiovascular disease rates. Smaller portion sizes and lower caloric intake further help maintain healthier cholesterol levels and blood pressure. It is innate to the culture but has become even more important due to the existence of international fastfood chains including KFC, Wendy's and McDonalds among others.

Physical activity also falls into place as Japan's public health strategy. Urban spaces encourage walking and cycling, and there is a cultural emphasis on maintaining physical fitness into old age. Government-sponsored fitness programs and community-based activities support an active lifestyle that reduces ACS risk through sports such as baseball or activities as simple as walking. Regular health screenings facilitate early detection and management of risk factors like hypertension and diabetes, which is seen in private clinics. Despite these efforts, challenges remain. Smoking is still common among Japanese men, and high-stress levels associated with demanding work culture can increase ACS risk. Public health initiatives have reduced smoking rates through regulations and awareness campaigns, yet cultural acceptance of smoking persists. Stress management programs are needed to address work-related stress. Overall, Japan's public health strategies only assist in lowering the ACS risk factors, offering valuable insight into how such ingrained social determinants of health can be attained elsewhere. Adopting culinary practices from the East and promoting that at a national level is a potential direction a country like the UK and USA should be taking.

Tailor effective communication to patients and healthcare professionals in spite of the language barrier, and describe how this new environment has improved my communication skills.

Japanese is not a language that I know to any meaningful capacity. However, even with just survival phrases including basic terms such as 'pain' and 'blood test', the level of communication I achieved with doctors there was up to par. This was epitomised by a case-based presentation I did at the end of my last night shift on a complex case of pneumonia and septic shock on a background of IBD. This required both slower and clearer speech from my end, using English that most people with limited English ability could understand. The use of technology such as Google lens, Google Translate and VoiceTra were huge in gaining as much information as possible not just from the physicians who were terribly busy at certain times, but also from the all-Japanese notes. Often, just approaching any of the doctors when I had questions or was curious about a patient would often net me not just a positive rapport with the doctor, but also open opportunities to take bloods, cannulate, or even suture. Many of the doctors in EM have

exceptional English, and the ones with limited English are always keen to try and improve it by speaking to the international students. In the future, basic competencies in Japanese are must and a strong grasp of katakana will go a long way in a field like medicine.