ELECTIVE (SSC5b) REPORT (1200 words)

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

In 2015, 31% of all deaths worldwide were believed to be related to cardiovascular disease(1), this has been increasing at a greater rate in South Asia than anywhere else in the world(2). The Health Bulletin in 2015 found that the main cause of death in hospitals across Bangladesh was cardiovascular disease, ranging from 16.32% in medical college hospitals to 21.83% in district hospitals(3).

Although the prevalence of rheumatic fever has been decreasing, from 7.5/1000 in 1976 to 0.9/1000 by 2005(2), chronic rheumatic heart disease remains an important differential, especially given the relatively young age at which patients often present.

Reliable data on conditions such as heart failure, arrhythmias and peripheral vascular disease is not currently available.

With the country undergoing rapid socioeconomic change and being set to leave the category of LEDC by 2024(4), the common lifestyle risk factors of cardiovascular disease such as obesity, diabetes mellitus, decreased physical activity and metabolic syndrome are all increasing(2). There are also factors such as an abnormally high salt intake (21g/day) due to poor awareness of the correlation between high salt intake and hypertension as well as freshwater desalination in coastal regions, chronic arsenicosis of people drinking arsenic contaminated groundwater, hypovitaminosis D and excessive air pollution, which are potentially linked to an increase in cardiovascular disease in Bangladesh(2).

As NICVD is a tertiary cardiovascular centre, the management that I saw was outstanding. The range of treatment options offered to patients and the level of expertise of the doctors was unquestionable. Unfortunately, often patients admitted to government hospitals simply cannot afford the optimum procedures or medications.

The diagnostic tests available at NICVD and other cardiac hospitals/ wards in Bangladesh are equal to those I have seen offered in the UK. The pharmacological management of heart conditions is also similar- one significant difference being doctors usually prescribe by brand name. This is often because certain brands are slightly more affordable while still being effective, hence are offered to patients who could not afford the more expensive brands were a generic "ACE Inhibitor" to be prescribed.

The number of interventional cardiology procedures being conducted in Bangladesh is rapidly increasing, from 8060 cardiac surgeries in 2014 to 9094 the year after(2). The entire array of cardiovascular interventions from open heart surgeries to PCI and radiofrequency ablations are now available in cardiovascular specialty hospitals and wards throughout the country.

Any consideration of management of CVD would be incomplete without giving thought to the aftermath of an admission to hospital with complications of cardiovascular disease and the information patients require and are given following discharge from the hospital. This information giving was something that I noticed was different to how we are taught to give pre-discharge information post-MI (as an example), though perhaps not all that different to what I have seen doctors on actual wards in the UK do.

The doctors here give very succinct information regarding red flags of new medications and general lifestyle changes such as stopping smoking or IV drug use that are specific to the patient and their

circumstances. The family is always a part of these discussions as it is expected societally that they will play an active role in the aftercare of the patient. At first, I was concerned that patients may not be receiving all of the information they may need, given the contrast to the avalanche of information we are expected to give to patients being discharged following admission for the same conditions. However, upon further observation of the doctors on ward rounds and after talking to several patients and their families on my own, I realised that in fact the doctors were tailoring their information giving to the level of understanding they know their patients to have, so as to benefit, help and not overwhelm them.

When I attempted discharge advice for a patient post-MI, or even a basic medication review, I found that the information I was giving was frequently met with a blank stare or an agape expression, and when I tried to check understanding, quite often there was none. Patient responses varied from "I didn't really understand anything.", regardless of how simple the language I used to, "Why are you telling ME this? Aren't YOU the doctor?" Which I found somewhat surprising.

In the UK, we believe that by fully informing our patients, we are empowering them and enabling them to take control of their own health and this attitude has successfully pervaded not just employees of, but patients under the NHS so that they too feel empowered by having almost excessive amounts of information "Even if I don't understand, I want you to tell me everything".

In Bangladesh, one of the patients on whom I attempted a medication review summarised the general consensus in one sentence "I don't understand so why are you telling me all this? Whatever you tell me to do, I'll do."

Although I believe that every doctor, and even medical student, has encountered a difficult situation where what we believe is best for a patient seems to directly contradict what the patient wants to do or actually does, we are still taught to value patient autonomy above all else. While I previously believed this to be largely (or even solely) for the benefit of the patient, I now appreciate that this may in large part be to ease the burden that was previously placed on doctors in the more patriarchal days of medicine.

Having patients depend entirely on the judgement of the doctors is a huge burden of responsibility to undertake and the staff at NICVD can be subjected to extreme stress when trying to manage a seemingly unlimited number of patients with insufficient resources and further constraints imposed by the financial abilities of their patients.

I was humbled by the methods they have adopted to handle this. The core knowledge of the doctors at NICVD and their ability to apply this knowledge is formidable. In one teaching session, the Intern doctors were asked by the Professor to narrow down the patient's most likely differential with just 4 questions. And the Intern doctor succeeded.

As patients have to pay for all tests and treatments themselves, but often those admitted to government hospitals are unable to afford a full panel of tests or the optimum recommended treatment, doctors are up to date with all the guidelines and are aware of many potential management plans in order to offer their patients the most effective treatment they can afford. This is also the case for diagnosis, where doctors have to be able to justify with thorough clinical reasoning why any test or procedure should be ordered.

The doctors here have also taught me the importance of staying calm and thinking through a situation when under pressure. Although I strongly value applied knowledge, I now appreciate the comfort of having more textbook clinical facts to fall back on and think through from first principles at times where I may otherwise draw a complete blank.

I have thoroughly enjoyed my elective and it has been an incredibly valuable experience for me. I hope to be able to successfully apply the knowledge and skills that I have learned to my career as a doctor in the NHS.

Word Count: 1200

References:

[1]World Health Organization. (2018). Cardiovascular diseases (CVDs). [online] Available at: http://www.who.int/mediacentre/factsheets/fs317/en/ [Accessed 22 Apr. 2018].

[2]Islam, AKM Monwarul & Mohibullah, AKM & Paul, Timir. (2017). Cardiovascular Disease in Bangladesh: A Review. Bangladesh Heart Journal. 31. 80. 10.3329/bhj.v31i2.32379.

[3]Health Bulletin 2015. Directorate General of Health Services. Ministry of Health and Family Welfare, Government of the People's Republic of Bangladesh. Available at: http://www.dghs.gov.bd/ images/docs/Publications/HB%202015_1st_edition_31122015.pdf, accessed, 22 April 2018

[4]Gay, D. (2018). Booming Bangladesh looks forward to LDC graduation | Support Measures Portal for Least Developed Countries. [online] Un.org. Available at: https://www.un.org/ldcportal/booming-bangladesh-looks-forward-to-ldc-graduation/ [Accessed 22 Apr. 2018].