

## **ELECTIVE (SSC5b) REPORT (1200 words)**

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

Neurological conditions comprise of a wide range of disorders affecting the brain and spinal cord, or the central nervous system, and the peripheral nerves, or the peripheral nervous system. These conditions are usually complex in both their pathology and their treatment, and as such, a multidisciplinary approach is often required in both Saudi Arabia and the United Kingdom. During my elective course in Saudi Arabia, I was focused on three key points: the guidelines used in the treatment of neurological conditions in Saudi Arabia, how they compare to the United Kingdom, and the public campaigns done in Saudi Arabia to raise public awareness of these conditions. These points will be talked about and highlighted in this report.

In Saudi Arabia, secondary care is provided through a network of hospitals equipped with specialized departments and healthcare workers. Neurosurgeons, neurologists, and specialized nurses are often needed to work together to properly manage patients with neurological conditions such as stroke, multiple sclerosis, Parkinson's disease, and epilepsy. Like the United Kingdom, a governing organization called The Saudi Arabian Ministry of Health (MOH) generates guidelines based on national and international studies for hospitals to follow. To start, in the management of stroke patients, the MOH follows the guidelines made by the American Heart Association and the American Stroke Association, and as such, these guidelines are very similar to the ones followed in the United Kingdom. In the management of multiple sclerosis, the MOH guidelines involve the use of disease-modifying agents such as Natalizumab and Ocrelizumab to properly treat patients. Additionally, they also use newer, more aggressive medications for more severe cases. Regular MRI scans for following up patients are also recommended. This treatment algorithm is almost identical to the one followed in the United Kingdom. In the management of Parkinson's disease, the MOH recommends the use of Levodopa as its first-line treatment, followed by dopamine agonists as its second-line option; these treatment options are identical to the ones found in the United Kingdom. However, deep brain stimulation can be used in severe cases of Parkinson's disease in Saudi Arabia, but it is not mentioned in the United Kingdom's guidelines. Lastly, in the management of epilepsy, a similar treatment algorithm can be found in both countries, with the medication used varying depending on the type of seizure the patient experienced. For example, Sodium valproate for males and lamotrigine or levetiracetam for females are used in the management of generalized tonic-clonic seizures in both countries.

To summarize, the treatment guidelines used in Saudi Arabia are created by carefully studying the guidelines of other countries, including the United Kingdom and the United States. They are also heavily referenced through a plethora of studies to find the most optimal available treatment for each neurological condition. The United Kingdom also has a similar approach, with the addition of performing treatment studies itself, and as such, the resulting guidelines are similar in both countries.

Neurological conditions, as well as other health conditions, are usually treatable and enable the person to have a good quality of life if caught early. As such, public campaigns are essential to raise public awareness of these conditions for people to seek help quickly. One of the most famous and effective public campaigns in the United Kingdom was the FAST stroke awareness campaign which informed the public of the signs of stroke in an easy and memorable way. This resulted in the easy identification of strokes, and consequently, better management of the condition. Saudi Arabia has also had effective public campaigns

in the past. For starters, the stroke awareness campaign, done by the Saudi Stroke Association in collaboration with the MOH, runs annual awareness campaigns to educate the public about the signs of symptoms of stroke using the FAST acronym, like the one done in the United Kingdom. Saudi Arabia also holds public lectures and social medial campaigns on the worldwide multiple sclerosis day to raise awareness on the condition. Additionally, the Saudi Parkinson Society holds frequent public lectures and health fairs to increase understanding of the disease. Lastly, the Saudi Epilepsy Society conducts regular workshops and seminar aimed at educations patients and their families. All these campaigns aim to increase public awareness of these life-changing and debilitating conditions, however, the problem with the approach of most of them is that they target people who already know about the conditions and are interested in learning more. Holding lectures and workshops, although effective on paper, only targets the people who already know about the condition. If they did not attend these campaigns, they will instead just look the conditions up on Google. To raise public awareness, fliers and advertisements on the streets and in social media need to be implemented so that the people who are not aware of these conditions can become aware. To conclude, Saudi Arabia does hold frequent campaigns to educate the public on neurological conditions, but the approach is not effective. As such, several measures need to be taken to improve the approach and thus succeed in increased the public's awareness and understanding.

During my elective course, I paid close attention to the nature of neurology and how patient care is approached and executed. I have always been the most interested in neurology out of all other specialized medical fields, which is why I chose this elective twice. Although I carefully studied the other objectives highlighted in this report, such as the treatment guidelines and the public awareness campaigns, I also aimed to frequently reflect on my experiences so that I can better understand the field and whether I want to specialize in it or not. Following the end of my elective course, I can confidently say that I will be pursuing a career in neurology as it is where my interest and curiosity lies. It is a fascinating field full of many unknowns and promising advancements, and I aspire to be a part of it.

To conclude, neurological care in Saudi Arabia is guided by elaborate protocols and guidelines carefully designed and curated by studying international guidelines and research studies. This is done to ensure the highest standard of care which can be found worldwide. When compared to the United Kingdom, Saudi Arabia demonstrates a commitment to following the best international practices and does not shy away from spending too much money on a single patient, unlike the United Kingdom where cost efficiency is a factor in care due to the budget of the NHS. Public awareness campaigns are help frequently in Saudi Arabia, but the current aim is to educate the patients and their families, and not to increase understanding and awareness of the public. All this research was to better understand the field of neurology and whether I want to pursue it, and following this elective course, I believe it is the field I want to specialize in.