

ELECTIVE (SSC5a) REPORT (1200 words)

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

I completed my first elective in Ophthalmology in Shami Eye Hospital. This is a private eye centre located within Amman, but is part of a chain with multiple eye centres across Jordan. I spent most of my time with the retinal department looking at both medical retina and vitreoretinal disease.

I had numerous discussions with all the doctors I shadowed on how eye pathologies differ within the Ammani population as compared to the rest of the world. I was informed, and witnessed through first hand account, that the Ammani population has a significantly greater incidence of keratoconus. Globally, incidents of keratoconus varies from study to study, but has widely been heralded as occurring in 1 in every 2000 people. (1) A study conducted in Jordan found that locally the incidence is around 1.38 for every 1000 people. (2) This is perceived to be as a result of numerous factors. Firstly, there is a genetic mutation amongst some members of the Jordanian population that predisposes them to developing keratoconus. In addition to this, environmental factors such as the dry, hot, and sunny climate contributes to a higher incidence of dry eyes, which is often alleviated by frequent eye rubbing, a well known risk factor of keratoconus. Furthermore, there is believed to be a wide range of allergens and irritants found in the atmosphere particularly here in Amman, which can lead to chronic eye inflammation, and subsequently to the development of keratoconus.

In addition to keratoconus, the Jordanian population has a greater incidence of congenital ocular pathologies, including congenital cataracts and congenital glaucoma. This is believed to be due to the greater prevalence of consanguineous marriages. Cultural differences exist which support inter-cousin marriages, as a sign of honour and respect for the wider family. However this increases the likelihood of recessive conditions becoming evident. In fact, whilst on my placement here in Jordan I had the opportunity to observe an operation where an eight year old boy had bilateral congenital cataracts removed. It is much rarer for cataracts to be left unoperated to this age in the UK.

Unlike the National Health System (NHS) found in the United Kingdom, Jordan does not have an elaborate, well connected publically funded healthcare system. Whilst most patients attend at 'government hospitals,' where fees are subsidised, the private sector here dominates, with various providers available offering a range of services. These can be paid for by insurance providers, or by the patient for one off services. Insurance can be obtained through ones occupation, or paid for independently. At Shami Eye Centre, I found the 'all in one eye care' model particularly intriguing. Due to the lack of a nationalised database of care records, patients had all of their ocular records from previous visits to both the local optometrist and ophthalmologist in one place, but not their GP. This meant that every consultation required some questioning of the patient's past medical history, particularly with regards to diabetes care and blood pressure control, as well as previous eye operations and procedures from other private providers. The patient is therefore required to be a much more active participant in their own care, for example in having knowledge of their hba1c readings. This also made it difficult to conduct research into ocular pathologies, due to the fragmentation of data and high risk of attrition, a frustration that was highlighted to me by numerous physicians whilst there. However, this system has generated a very stark difference in turnaround time – a patient could be seen for the first time, have their imaging done and their eyes examined and the necessary surgery all within the hour. This is because the patient demand per doctor differs greatly from centre to centre. This is a world away from the NHS, where my SSC placements and my year four rotation in Ophthalmology at Moorfields made me very accustomed to the phrase 'we'll see you in a couple months time for the operation.' Furthermore, whilst all the clinicians there had their particular subspecialty, it was not uncommon for any of them to see unrelated ocular pathologies. This meant that they were all much more proficient and well versed on a wider variety of conditions. The distribution of patients over a range of providers also means that there are no specific 'tertiary centres'

like Moorfields to which super specialised conditions would otherwise be referred. As a result, I felt I gained much experience across the whole breadth of ophthalmology – from the everyday complaints of a chalazion, to the very rare patient with ocular albinism (an X-linked recessive condition). The private provider system also means that patients can very easily be seen by specialists, as opposed to the NHS where patients must first go through their primary care provider, be that the optometrist or the GP. This is useful in that if a time-dependant pathology is present (e.g. posterior vitreous detachment) it can more readily be picked up and appropriately operated on. On the flipside, this redistributes patient load onto specialists who would not necessarily need to see these patients.

In conclusion, my two week placement at Shami Eye has been an eye-opening experience. I very much enjoyed the hands on experience I got, with my supervising clinicians teaching me how to use the slit lamp and what signs to look out for with each patient. As the patients all spoke Arabic, I was fortunate enough to also use the opportunity to further my language skills. Arabic is my mother tongue so I'm able to recognise almost all the terms used in the consultations, however I have now learnt specialist medical terms as well which may help me in my future practice as a junior doctor with Arabic-speaking patients. The breadth of pathologies seen, as well as the range of experiences obtained all proved useful, and I would highly recommend this experience to other medical students as well.

References:

(1) <https://nkcf.org/how-many-have-kc/>

(2) Hashemi H, Heydarian S, Hooshmand E, et al. The prevalence and risk factors for keratoconus: a systematic review and meta-analysis. *Cornea*. 2020;**39**(2):263–270. doi:10.1097/ICO.0000000000002150