

ELECTIVE (SSC5a) REPORT (1200 words)

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

I arrived at the Edward Harkness Eye Institute for my Oculoplastic clerkship on the first day of May. I was scheduled to spend the day in the operating room with Dr. Marr who specializes in ophthalmic oncology. There were three patients scheduled for plaque radiation therapy for choroidal melanoma and one patient for excision of conjunctival melanoma. Although I had heard of brachytherapy as a treatment for choroidal melanomas, it was a procedure I had not seen first-hand yet. I did some further reading and talked to various staff in the OR including the radiation technologists and Dr. Marr to learn more about the procedure. Brachytherapy for uveal melanoma involves suturing a radioactive plaque containing Iodine-125 (¹²⁵I) on the sclera to deliver radiation to the tumor and halt its growth. The plaque also has a shield made of gold to reduce radiation damage to surrounding orbital structures. Each plaque is custom-made for each patient based on the location and size of the tumor. Once the plaque is implanted, the patient can go home for three days if they can follow radiation safety precautions. They return afterward for another surgery to remove the plaque, after which they are radiation-free. Brachytherapy treats and reduces the recurrence rates to levels comparable to enucleation, which is a much more invasive and cosmetically disfiguring treatment. Some complications associated with brachytherapy include cataracts, macular edema, and radiation-induced retinopathy. Depending on the location of the tumor, some patients still manage to have a meaningful amount of vision after treatment if it does not involve the macula. Over the few weeks that I was at the Eye Institute, I observed this surgery multiple times and even assisted for one. As the surgeries took place, I tried to think about why they were doing things in a particular fashion, whether it is the location of a suture or the way they prepare patients for surgery. I felt incredibly grateful to be involved in this type of surgery which most institutions do not have the infrastructure to offer to their patients. On Wednesdays, I saw many patients with choroidal melanomas or choroidal nevi. It was a great learning opportunity to see all aspects of the management of uveal melanomas, including monitoring choroidal nevi, diagnosing malignant melanomas, and following up with patients who were treated. I saw patients who had the surgery as recently as a week prior to over ten years. It was reassuring to learn that these patients could continue living meaningful lives because of their treatment. Particularly in Dr. Marr's clinic, I was able to appreciate the importance of building rapport with patients and listening to them, whether they are talking about their concerns or their day-to-day lives. These little things go a long way in making patients feel heard and developing an excellent doctor-patient relationship. It was obvious that the patients were all more than satisfied with their treatment. Dr. Marr's attitude toward patients exemplified the kind of doctor that I have always wanted to become, and that is something that I will take with me forever regardless of where I work in the future.

I also spent a good portion of my time with Dr. Kazim in his OR and clinic. Most of us learn about thyroid eye disease as a manifestation of Grave's Disease in medical school. However, I could only appreciate the complexity of this condition when I sat in Dr. Kazim's clinic where patients come from even other countries to seek his help. Thyroid Eye Disease comes in various forms and can be predominantly proptotic, diplopic, or inflammatory. The rate of progression also varies among patients, so it is hard to predict how severe a specific patient's disease can get. In extreme cases, rapid expansion of orbital soft tissues can lead to optic nerve compression and vision loss. Treatments for this condition can either suppress disease activity (steroids, tocilizumab, and Teprezza) or shorten the course of the disease (rituximab or radiotherapy). A combination of the two types is also commonly used. Once patients are in the stable phase of their eye disease, they can have surgery to fix their ocular symptoms. It was fascinating to see Dr. Kazim's expertise in predicting the course of each patient's disease depending on how they present and the nuances in his decision-making process in choosing an appropriate treatment. Due to its complexity, Thyroid Eye Disease can be challenging to manage. I saw various patients who had permanent complications from previous treatments they had received elsewhere. Often, Dr. Kazim was a last resort for patients who had seen multiple people and been treated unsuccessfully. I admired how his vast experience and dedication to his work allowed him to meet the high expectations that his patients had of him. In Dr. Kazim's OR, I also saw various surgeries, including eyelid reconstructions, frontalis suspension using a fascia lata graft, lid retraction and proptosis repairs, etc. One interesting thing we discussed was how pharmaceutical companies could directly contact patients in the United States to advertise their medications to them. One of the patients I saw in clinic had recently attended an event organized by the pharmaceutical company where various people talked about their positive experiences of using their medication. They were

one of the many patients with the same condition the company invited to advertise their medication. I met many patients in Dr. Kazim's clinic who also reported being contacted by the pharmaceutical company numerous times. It is interesting to think about whether it is in a patient's best interest to directly engage with pharmaceutical companies whose primary interest is to profit from selling their products. This kind of direct relationship between pharmaceutical companies and patients is not something that I have observed in the United Kingdom. Similarly, physicians prescribing costly long-term medications instead of recommending surgery that can cure the patient was a topic that commonly came up during my time here. Since private healthcare is much more established in the United States than in the UK where national and local guidelines mainly regulate the choice of treatment in the public healthcare system, there may be more opportunities for the odd physician to possibly misuse their privileges. Although websites like Open Payments exist to help people discover any financial relationship their physicians may have with pharmaceutical companies, it is not common knowledge among patients. On the other hand, the UK's public healthcare system also means that patients may receive slightly less effective medications because the system's primary goal is to be cost-effective. I look forward to learning more about the ethics involved to develop more insight into this issue.

I had the most opportunities to scrub in for surgeries while I was with Dr. Glass, which I appreciated as someone who enjoys the practical aspect of surgery. During surgeries, I often asked why certain things are done in a specific way. It was fascinating to learn from different surgeons their rationale behind the sutures placed and the knots tied and how all these little details help make the surgeries more efficient and improve outcomes. Seeing multiple blepharoplasties and ptosis repairs with Dr Glass allowed me to understand these details better. I felt grateful for how involved Dr. Glass encouraged me to be in patient care, and I looked forward to the days I had with her. One thing that especially stuck with me was Dr Glass's commitment to making sure that patients were comfortable and felt in control of the situation. She explained everything to them in a detailed, yet appropriate language to keep them in the loop about the things that were taking in the clinic regardless of how busy it was. I've often had experiences in the past where patients were not aware of what is going on with their condition or care. I thought this approach encouraged them to take agency of their own health. This was also a great way for students in her clinic to learn without making patients feel left out of the conversation due to technical jargons. These are things that I will carry with me in my career to help both patients and students alike. In Dr. Glass's clinic, I saw many patients with chalazion or hordeolum, which are common conditions. The numerous patients I saw with these issues helped me reinforce my understanding of the presentation and management of this common ophthalmological condition. Meibomian gland dysfunction was one of the most common presentations in clinics. In addition to the management pathways that I had already used to advise patients during my Family Medicine rotation in the past, I learned about other treatment options such as Avenova, Lipoflow, and Intense Pulse Light. Although it sounds benign, dry eyes can be incredibly uncomfortable for patients who are often shocked to learn that all their pain is caused "simply" by dry eyes. I found it very important to communicate the nature of this condition sensibly and validate the patient's struggles, so they do not feel their issues are being minimized.

It was interesting how both patients and providers in the US must consider whether the provider accepts the patient's insurance and spend a significant amount of time on administrative tasks involved. This is not something that healthcare providers or patients (legal residents) worry about in the UK under the public healthcare system. I saw the full spectrum of patients in terms of both socioeconomic background and the quality of insurance they had. I saw how a patient with Medicaid was struggling to access psychiatric input that they desperately needed because their insurance was not accepted by all the providers they reached out to. Another patient consulted with the doctor of her choice regarding a surgery she needed, but there were doubts about whether she could proceed with this doctor due to her insurance. Although the healthcare insurance system is different in the UK, I feel that we still face similar issues in terms of accessibility because healthcare is a scarce resource and in high demand everywhere. One thing I liked about the private healthcare system in the US was how patients could choose the doctor they work best with and see them long-term for continuity of care. I think that this may be in the best interest of patients as different physicians have different consultation styles. It helps patients to find a physician whose methods they are compatible with. In the UK, most people are accustomed to using the public healthcare system. Due to mounting pressure, it is often unfeasible, despite our efforts, for patients to see their preferred doctor or even just a regular doctor to have that continuity of care. However, I can imagine that having a regular doctor would still be feasible in the UK through private healthcare or in more rural areas that face less pressure.

I have been an enthusiastic and curious learner during my time here and embraced the opportunities I received.

I thoroughly enjoyed assisting for various surgeries with Dr. Brian Marr (plaque insertion), Dr. Michael Kazim

(lid reconstruction), Dr. Lora Glass (blepharoplasties, conjunctivo-tarso-muller's resection, external levator resection, and ectropion repair), Dr. Sonali Talsania (hypertropia repair) and Dr. Martin Leib (conjunctival lesion removal). In my spare time, I went to learn about other aspects of Ophthalmology by visiting the retina clinic and observing vitreoretinal (Dr. Chen and Dr. Tezel), cataract (Dr. Park and Dr. Suh), and corneal (Dr. Florakis) surgeries. I am incredibly thankful for how welcoming and helpful all the doctors and other staff have been. I felt fortunate to learn from individuals who are some of the bests in their field. Although I learned a lot during the month I spent here, it does feel like it passed by very quickly, and I wish I could keep learning from the incredible mentors I have had here. This placement was an amazing opportunity for me to learn more about Oculoplastic and Ophthalmology and really reaffirmed my interest in this specialty.