

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

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

**Beilinson Hospital in Israel is a tertiary care and research centre located in Petah Tikva, equipped with modern diagnostic and therapeutic tools. Its staff is specialised in both diagnostic imaging and interventional radiology, with separate facilities for paediatric imaging for the Schneider's Children's Medical Center, located on-site.**

**As part of the elective, I was attached to the radiology team. My time spent at Beilinson was divided between sitting in various reporting rooms, and witnessing clinical encounters with patients for ultrasound scans. In the second week, a group of American medical students joined the hospital, and I had the opportunity to attend teaching sections geared at juniors, and delivered in English. The experience served as a revision and opportunity to enhance my anatomy knowledge, improve in spot diagnosis and diagnosis of acute conditions from CXRs, AXRs and head CTs, as well as learning about relatively new imaging methods such as PET MRI, and their application in clinical practice.**

**When enquiring about the most common conditions types with which patients present at the hospital, it was not surprising to discover there is a variety of them given it's a general hospital, and that the range of conditions is similar to that witnessed by other imaging departments in much of the Western world. Common scan modalities included CXRs for which PEs and pneumothoraxes needed to be ruled out acutely, and CXRs requested pre or post-operatively by other departments. Abdominally, AXRs and CTs were commonly used to rule out abdominal obstruction and following trauma. Likewise, a number of head CTs were analysed following falls checking for brain EDH, SDH or intracerebral bleeds. MSK-wise, x-rays were commonly adoperated for patients complaining of joint pain in their lower back and limbs, screening for conditions such as degenerative/osteoarthritis, gout and rheumatoid arthritis. These were then followed by other imaging modalities such as CTs and MRIs when indicated, to better evaluate soft-tissue pathology.**

**Another imaging modality commonly adoperated in the hospital which I was widely unaware of, is cardiac MRI. The gold standard, preferred to echo in terms of precision, for estimating left ventricular cardiac function by measuring EDV and ESV, and thus monitor cardiac failure longitudinally.**

**Overall, the hospital had more paediatric imaging than perhaps other hospitals I have been to in London, given that the Schneider's paediatric hospital attached to the Beilinson campus is the biggest paediatric hospital in Israel. Moreover, in comparison to radiology departments in the UK, the breast imaging field seemed to be more advanced in Israel, potentially owing to the higher percentage of population carrying BRCA1 and BRCA2 genes, predisposing to breast – among other- cancers.**

**Within the UK's National Healthcare System (NHS), relatively less invasive and less expensive investigations are ordered first, only then followed by more specialist scans and this was also the case in Israel. This is in contrast to the American healthcare system, inside which clinicians tend to request more imaging studies initially, most often because of what has been termed "defensive medicine", or the fear of being sued by patients for not ordering a test and potentially missing a diagnosis.**

**In terms of management of the radiology departments in the UK, most of the work-load is reported on by consultants/attending physicians (after completion of radiology specialisation), with residents giving their input. In countries such as the USA the contrary is true, with most of the work being**

delegated to trainees who interpret scans, and whose reports are then checked by attendings. With regards to service provision in Beilinson, reports are written by both attendings and trainees. In case of the trainees being junior, the reports are checked by one of the attending radiologists.

A similarity between the UK and Israeli medical systems is the fact that multidisciplinary (MDT) meetings in both countries occur frequently and are an essential part of care provision. During my time here, MDT meetings occurred several times a week at 7.30am, with staff in attendance including doctors from different specialties such as radiologists, oncologists, neurologists and surgeons from within various subspecialties. On tumour board meetings, nurses that coordinate care provision are also present. Moreover, a departmental meeting for auditing and teaching purposes occurred weekly on Tuesday at 7.30am.

One of the learning objective of this elective abroad was to strengthen my knowledge in diagnostic radiology. While sitting in with radiologists reporting on scans, they would often talk me through how they were reporting on scans systematically to make sure nothing was being missed. We would discuss imaging modalities and imaging findings and their significance, such as the importance of windowing in CTs, the silhouette sign or loss of borders usually present between different structures within the thorax, and the ginkgo leaf sign of subcutaneous emphysema on CXRs, or the presence of intraabdominal fat stranding on CT scans of patients with transitional cell carcinoma and other less serious pathologies, a sensitive sign representing inflammation, infection or cancer.

I was taught various methods of analysing CXRs systematically, after which I was given the opportunity to look at CXRs of common pathologies and write reports in my own notes. This was then presented to one of the physicians who provided me with valuable feedback on what to improve on. Moreover, individually or in groups, we students were given lists of patients with either common or interesting findings on imaging, and were able to review the scans and discuss our findings with one of the radiologists, which proved an excellent and engaging learning tool, much more effective than a lecture being delivered by a physician. With the radiologists, we then discussed differential diagnoses and further investigations and management. I became able to appreciate the importance of clear, well-structured radiology reports. In particular, I learned to appreciate that often there is a level of uncertainty in radiology and that this, too, needs to be openly communicated and discussed in the reports. Moreover, I learnt that it is good practice to report on findings that at the current moment might not fit a particular clinical picture, so that other clinicians can still access information that might be relevant in the future.

These 3 weeks have enhanced my knowledge of anatomy, gave me an overview on writing radiology reports and the width and breath of a career in this specialty, which includes among other things reporting, providing invaluable input at MDT meetings, scanning of patients such as in ultrasound and fluoroscopy and performing procedures such as biopsies. I am grateful for the experience and it enabled me to be able to make a more informed choice with regards to pursuing a career in this specialty after my internship year.

**Words: 1098**

**By: Luisa Peress**

**Date: 29/04/2018**