

ELECTIVE (SSC5a) REPORT (1200 words)

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

What are the patterns of common radiological findings relating to paediatric and obstetric disease in Cyprus, and how do they differ from other countries?

During my elective, I spent time in the Archbishop Makarios Hospital which is focused on care of patients in paediatrics, gynaecology, and obstetrics. I was allowed to join teaching sessions on common diseases and learnt how radiology is used to diagnose, treat, and ensure safety in this population of patients.

Within paediatrics and neonatal care, radiology is involved in assessment and diagnosis of congenital abnormalities relating commonly to abdominal, urogenital, cardiac, and neurological defects. These are largely similar to those which are common in the UK, such as heart defects, neural tube defects, and Down's syndrome. Specifically, within the paediatric and neonatal intensive care units (NICU), scans and radiology input are vital in checking the safety and location of various tubes, including central lines, endotracheal tubes, venous access and feeding tubes. In patients on NICU, we found that it was also important to assess for any specific fractures, such as clavicular fractures, which can occur during invasive procedures such as intubation. This is especially important, as Cyprus has a high preterm birth rate and a large proportion of low-birth-weight infants(1).

Within obstetric care, we found that the radiological processes involved in caring for pregnant patients were very similar to those in the UK, with a similar screening and scanning programme, and a similar rate of findings.

How is antenatal screening and imaging organised and delivered in Cyprus, and how does this differ to the programme in the UK?

During our elective, I learnt that the antenatal screening programme in Cyprus is very similar to that in the UK. Pregnant women in Cyprus are commonly offered up to ten antenatal appointments including scans and other assessments. A booking appointment, similar to that in the UK, is carried out at 8-12 weeks either with a GP or within a hospital. At this point lifestyle factors, nutrition, and supplements are discussed, as well as a full history relating to previous pregnancies, familial abnormalities, or any current symptoms. Women may also be offered an ultrasound scan, and screening tests are carried out to rule out for congenital abnormalities such as Down's syndrome. At 20 weeks, an anomaly scan is carried out to look for any other abnormalities. From 24 weeks onwards, women are seen more regularly to form a birth plan and to continue assessing the progression of the pregnancy towards labour.

Although the screening programme is very similar to the UK, an added test for pregnant couples is often included to determine whether they are carriers for thalassaemia, often ahead of the pregnancy or during the antenatal period.

To discuss the public health screening measures taken in Cyprus to minimise the prevalence of thalassaemia, a common genetic disorder in the country. Compare the social implications of the disease against countries where this is less prevalent.

Thalassaemia is a common, genetic blood disorder in Cyprus, with 17% of the Greek and Turkish Cypriot population being carriers of beta-thalassaemia genes and 10% carrying alpha-thalassaemia genes(2). Prevention programmes have existed in Cyprus since 1973(3), including public education, population screening and genetic counselling(3). Increased information about the disease was shared with the public and frequent talks were given to increase knowledge within the population. Population screening is available when requested by patients but is also specifically recommended for all people before marriage and before planned conception. This can also be done antenatally as mentioned previously. Following this, patients have access to genetic counselling to determine the risks associated with pregnancy if any

abnormalities are found and to discuss future options based on this(3). These prevention programmes have been successful in reducing the prevalence of thalassaemia within the country(3). This prevention programme does not exist in other countries, such as the UK, where the rates of thalassaemia are much lower and so do not affect as many patients and quality of life.

To become more confident in my approach to radiology and appreciate the importance of the specialty in the management of obstetric, gynaecological, and paediatric conditions.

During medical school, I did not have the opportunity to specifically shadow the radiology department and I have often, during placements, been on the other side while working with other specialties who were requesting scans. This has meant that I haven't really been able to appreciate the role of radiologists fully and their day-to-day work with patients.

Throughout this elective I was able to join the consultant of the radiology team and look at the scans that were carried out on paediatric patients. I have a better understanding of the key findings and the approach that radiologists take when assessing scans to ensure safety, and how they make plans and recommendations to other teams based on this.

I have previously found assessing and analysing scans quite difficult throughout medical school, so being able to learn a more systematic approach to this which focuses on the most important aspects for safety has been really useful prior to starting my foundation jobs. Specifically, within the neonatal intensive care unit, I was able to experience how important scanning is in their treatment and monitoring, especially the use of brain scanning to assess for any injuries and to monitor their progression.

Overall, I feel that I have a much better understanding of the role of radiologists within the hospital and how they use radiological procedures to assess and treat patients. I feel more confident in my assessment of scans and really enjoyed my experience in the hospital.

- (1) Efstathiou E, Theophilou L, Angeli S, Hadjipanayis A. The child healthcare system in Cyprus. *Türk Pediatri Arşivi*. 2020;
- (2) Ashiotis T, Zachariadis Z, Sofroniadou K, Loukopoulos D, Stamatoyannopoulos G. Thalassaemia in Cyprus. *BMJ*. 1973;2(5857):38-42.
- (3) Angastiniotis M, Hadjiminias M. PREVENTION OF THALASSAEMIA IN CYPRUS. *The Lancet*. 1981;317(8216):369-371.