

## ELECTIVE (SSC5a) REPORT (1200 words)

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

Describe the pattern of cardiovascular disease in Cyprus and discuss this in the context of the UK.

Cardiovascular disease is a term that refers to conditions that affect the heart or blood vessels. It includes diseases such as coronary heart disease, angina, congenital heart disease, stroke, hypertension, and others. (NHS England, 2023) Modifiable risk factors for CVD include hypertension, hypercholesterolemia, smoking, diabetes, and inactivity.

According to WHO, cardiovascular disease is the main cause of death in Cyprus, accounting for 34% of all deaths. The high prevalence of cardiovascular disease in Cyprus is related to the high prevalence of risk factors for CAD. According to WHO, it is estimated that about 45% of adults in Cyprus are insufficiently active, 22% of adults have hypertension and 8% of adults have diabetes. Also, it is reported that in 2016, 52% of males and 19% females were smoking tobacco, with an average (36%), much higher than the EU average (21%). (WHO, 2018) There is insufficient data regarding the prevalence of hypercholesterolemia in Cyprus however a small study estimated a prevalence of 65% in the elderly and the actual prevalence in Cyprus was estimated to be 14% (TC >200 or use of statins). (Kypris, 2018)

In comparison, in the UK, cardiovascular disease accounts for 25% of all deaths, making it the 2<sup>nd</sup> most significant cause of mortality after cancers, affecting around 7 million people. The prevalence of risk factors for CAD is similar in the UK with slightly lower percentages for each risk factor. (WHO, 2018)

Another important contributor to morbidity and mortality caused by cardiovascular disease in Cyprus are the inherited cardiovascular diseases (ICDs) such as cardiomyopathies and channelopathies. The reason that ICDs are particularly important in Cyprus is because it is a closed society with a small population which reduces genetic diversity, hence increasing the chances of acquiring inherited diseases. ICDs have received a great deal of attention in recent years by the medical and scientific community because they are associated with sudden death in young people and athletes. The most common ICD in Cyprus is Hypertrophic Cardiomyopathy (1 in 500 people). Other important ICDs include Arrhythmogenic cardiomyopathy (1 in 1000/5000), dilated cardiomyopathy (4 in 10000) and Long QT syndrome (1 in 2000/3000). It is estimated that about 3000 people in Cyprus suffer from ICDs. (Antoniades, 2020)

Describe the pattern of health provision for cardiovascular pathologies in Cyprus and compare this with the UK.

In Cyprus, healthcare is delivered both through the public and private sector. The public system is regulated by the Ministry of Health and follows EU guidelines. The private system, however, is largely unregulated and utilizes high-cost medical technology with an excess supply of private physicians and lack of organization and continuity of care. (Kypris, 2018) A major health system reform that provides universal health coverage took place in Cyprus in 2017 and many private clinics or hospitals have joined the public system since the reform which has helped in improving regulation and continuity of care. This system has many similarities with the UK's NHS in that patients access healthcare by visiting their family doctor/GP who then manages a certain range of pathologies and refers to secondary and tertiary centres as and when appropriate. However, the new system is still in its early stages and has a lot of room for improvement in terms of standardizing the level of care provided.

Cyprus has seven centers that can provide Percutaneous coronary intervention (PCI). They are all located in two of the major cities of the country. There are 3 more major cities in Cyprus which do not have PCI centres. The geographic imbalance creates a barrier to accessing the PCI centres, creating a health inequality for some regions, however, distances between major cities are relatively small so with proper planning PCI centres can be reached in time. All the centers can provide primary PCI treatment. (Kypris, 2018)

Describe what methods are used for cardiovascular disease prevention in Cyprus

CVD prevention is coordinated and encouraged by the Ministry of Health, the Cyprus Cardiology Society, primary care physicians and cardiac centres of the private and public sectors however, there are no dedicated bodies or centres that focus on CVD prevention. Most of it is delivered by general practitioners, medical physicians, and cardiologists.

General practitioners (GPs) have a key role in CVD prevention as they have the opportunity to assess for risk factors and provide lifestyles and pharmacological intervention. However, there are many barriers that prevent GPs from achieving this. One of the main barriers is the lack of resources especially time due to the large number of patients they are seeing every day. Additionally, GPs lack specialized, up-to-date training regarding the provision of CVD prevention. It is very important for GPs to be able to be actively engaged with CVD prevention as they are the ones that patients have more access to and see more often so they have more opportunities to make an impact. To achieve this, better training is needed regarding prevention strategies and time needs to be devoted especially for assessing and managing CVD risk factors. Cardiologists and internal medicine physicians are better equipped to deal with CVD prevention as they have more time per patient, and they are better educated in CVD. Additional barriers that may prevent doctors from providing optimal CVD prevention is that there are inconsistencies in guidelines and the use of risk assessment tools and variability in patient motivation to comply with lifestyle or pharmacological interventions. In Cyprus, there are no national cardiovascular disease prevention guidelines available therefore most primary care physicians and cardiologists use the European guidelines. (Kypris, 2018)

Other methods through which CVD prevention is delivered in Cyprus are through campaigns, projects, education, and health visitors in schools. One of the campaigns organized is the 'World Heart Day'. This is organized by the Cyprus Society of Cardiology and activities involving the prevention of CVD are organized. For example, the promotion of relevant articles through social media and TV clips prepared by members of the society. Other similar campaigns are organized by other societies such as the 'World Hypertension Day' by the Cyprus Society of Hypertension and the 'World no tobacco day' by the Cyprus Pulmonary Society. Some projects that were completed regarding CVD prevention include a diabetes strategic plan approved by the Council of Ministers in 2016 and a 5-year program aiming to change dietary habits in preschool and school-aged children to prevent chronic diseases like obesity. (Kypris, 2018)

Gain experience in assessing and managing patients with cardiac conditions.

My final objective during this elective was to gain experience in assessing and managing patients with cardiac conditions. The cardiologists and junior doctors helped me achieve this by asking questions during ward rounds to check my understanding and by explaining how they reached each decision they were making during the ward round. I really appreciated that they took the time to make sure I had a good understanding of the management plans. In addition, I observed how cardiac conditions were assessed using ECHO, PCI, MRI and other investigations. I feel that I have become more familiar with recognizing the next appropriate steps for the main cardiac presentations and I have gained some exposure to reading and understanding ECHO and PCI reports which helped me have some basic understanding that I can build on later on in my career.

**Word Count:** 1223

## **References**

Antoniades, L. *et al.* (2020) *Inherited Cardiovascular Diseases Cardiomyopathies – Cyprus Data.*

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Kypris, L. (2018) *Country report of Cyprus – September 2018*. Available at: <https://www.escardio.org/static-file/Escardio/Subspecialty/EAPC/Country%20of%20the%20month/Documents/cyprus-country-of-the-month-full-report.pdf> (Accessed: May 31, 2023).

NHS England (2023) *Cardiovascular disease (CVD)*. Available at: <https://www.england.nhs.uk/ourwork/clinical-policy/cvd/> (Accessed: May 31, 2023).

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