CARDIOLOGY

Onassis Cardiac Surgery Center.

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Elective Learning objectives written report:

1) Which are the prevalent cardiovascular conditions in Greece? How do they differ from the UK?

Greece used to be one of the countries with the highest life expectancy, a fact mainly attributed to the Mediterranean diet that was protecting from the cardiovascular disease. Recently these statistics are changing and new researches are revealing that morbidity and mortality from cardiovascular conditions is on the increase.

Data from the Greek Statistic Authority (2003) showed that 49% of deaths were due to cardiovascular diseases. Every year about 40000 people in Greece are afflicted by strokes or heart incidents. Specifically, heart and related diseases is the main cause of death for the 54% of the women and for the 43% of men.

The main cardiovascular conditions in Greece are the following: 1) coronary heart disease, 2) hypertension, 3) heart muscle disease, 4) arrhythmias and 5) heart valve disease.

These are conditions, characterizing the western countries (UK included). The main difference between the UK and Greece is that since the sixties when ischemic heart disease (IHD) and IHD-related deaths were rare in Greece and commoner in the UK, over the years the incidence increased in Greece and remained stable or decreased in the UK. This can be attributed in the change of lifestyle in Greece and in the failure of the central government to establish and maintain preventative measures.

2) How are cardiovascular services organized and delivered in Greece? How does it differ from the UK?

The delivery of cardiovascular services in Greece is under the control and organization of the Hellenic National Healthcare Service (HNHS- Ε.Σ.Υ). The HNHS is an organization which is under the supervision of the Ministry of Health. Despite being a relatively new organization (was established in 1983) the attempts of organizing a public healthcare system in Greece are quite old. In fact, their roots go deep back in the past with the establishment of the newly formed Greek state after the war of independence. The evolution of the

public health sector in Greece can be divided in 4 periods which are the following: 1833-1922, 1922-1945, 1945-1974 and 1974 till today. Personally, I would add another one period from 2009 till today because the financial crisis of 2009 and the request for financial support from the International Monetary Fund (IMF) and the financial mechanisms of the European Union (EU) affected dramatically the healthcare services in Greece.

In 1833 the services were under the control of the Ministry of Internal Affairs and their main objective was the detection and control of infective diseases at the ports. 1922 is a very important date because the health care services became independent and self-regulated with the establishment of the Ministry of Health. In this period a state insurance fund was also established (the Foundation of Social Insurances/FSI- I.K.A) and the first attempt for a central holistic control and organization of the state hospitals was also attempted. The years after 1948 are the period after the World War 2 and the Civil War and the health care system was not the primary objective of the governments of that time. Finally, is the period after 1974 when the most dramatic changes, happened. In 1983 the Act for the formation of the HNHS was voted in the parliament. The main aims were to offer to all citizens, quality services of the highest standards provided under state control.

The structure of the system divided into 2 "bodies" and in 3 levels. The 2 "bodies" are the following: open or services outside the hospital in the community and hospital (closed) services. The levels are the following: primary services, secondary and tertiary hospital services. The primary services were revolutionary because for the first time a systematic and organized approach was attempted and put in action. These services would be provided by family doctors (general practitioners) and primary healthcare centers belonging to the HNHS or private doctors working in partnership (contracted) with the HNHS. The initial plan was the construction of 400 health centers manned mainly with doctors specialized in internal medicine or general practitioners, newly qualified doctors doing their provincial service, nurses, midwives and health visitors. In some areas (mainly remote areas like the islands) the personnel could include more specialized doctors working in the health centers. The secondary and tertiary hospitals were more specialized centers for the management of the more sick people that needed hospital admission.

The financing of the new system was (and still is) based on a quite complex mechanism. Instead of following the British approach where the NHS funding is based on taxation or, following the German system where (almost) everybody is insured by state/social insurance funds the Greek government tried to combine the two systems. Till today the main financial sources of the HNHS are the following three: 1) the state budget via direct and indirect taxes, 2) the social insurance of all the workforce and 3) private contribution.

The state budget is the biggest contributor of the system. It covers mainly the expenses of the treatment that is provided in the hospitals and the healthcare centers. The social insurance funds (funded by the contribution of the employers and/or the employees) cover mainly the expenses for the treatment that is provided in the community. Till recently there were more than 300 different social insurance funds in Greece and this was often leading to "discriminations" in the quality of the services that was being offered to the individuals. Additionally, some services were absolutely free for some funds, while insured individuals from other funds had to contribute financially for the same service. After 2009, the government tried to control and decrease the number of the funds by merging them, but this led to further problems because it was performed with poor planning and under very intense time and financial pressure. The third financial source of the system is the private contribution. This includes the services that are provided by the system to people that are not insured, or the amount of money that insured patients have to contribute for prescriptions or specific paraclinical investigations.

The main differences between the UK and Greece are that in Greece patients can have immediate access to specialists without the need for referral from their GP. On the other hand, services in the UK are completely free of charge and despite the huge bureaucracy behind the NHS, it can be faster, more organized and more holistic in patient support, especially when it comes in hospital services and home support after the discharge from the hospital.

3) In the era of financial crisis in Greece how this has affected the general health of the population and specifically the cardiovascular diseases?

From the beginning of the financial crisis many researchers and scientists from all the scientific spectra (medical doctors, sociologists, economists etc) had warned that the social complications would not only affect the financial quality of life of the society, but the general health of the population would also be affected. The situation becomes more complicated and more devastating because the unemployment rates (especially among the younger workforce) are constantly increasing (27% of the general population, about 60% in the younger ages).

During those 5 years since the beginning of the crisis the following have been reported. The number of births is lower than the number of deaths by 14000 (for the years 2011-2012). The index of infant mortality rate has increased from 2.7 in 2008 to 4.6 in 2012. The life expectancy of the general population is estimated that it has decreased by 2-3 years in both sexes.

The suicide rates are also increasing. Despite the fact that till today Greece has one of the lowest suicidal rates the number of the people who end their lives everyday has doubled. In 2008 there 2.8 deaths committed by suicide per 100000 people and in 2010 there are about 5.7/ 100000 people. And these numbers are still on the increase.

For the cardiovascular diseases there are no official data released, but the general feeling is that the incidence of such diseases (especially ischemic heart disease) and the related complications will increase. The experience from examples of other countries which faced similar financial issues in the past is disappointing. For example, in the most recent example of Argentina, the bankruptcy led to the increase of the of the in-patient deaths for the acute myocardial infarction from 2.9% to 6.9% and for the heart failure complications from 11% to 16%. Similar figures are expected for Greece.

4) In terms of being a Greek citizen studying in the UK and trained under the NHS standards which are the differences/similarities in training and patient approach between UK and Greece? How difficult/easy was to adapt in the demands and in the approaches that are present in a different hospital environment? Has this elective helped me on making a decision for my future medical career?

Before starting my elective at Onassis Cardiac Surgery Centre, my "exposure" and experience with hospitals in Greece were limited. In fact, I had only seen the hospitals in Greece from the visitor's point of view, when I had to visit hospitalized relatives and friends. The other information I had, was through the stories I had listen from friends studying medicine in Greece. So this elective in Greece was a unique opportunity to see the things from the "other", doctor's side. Additionally, this would be an opportunity to spend 5 weeks in my country after a long and hard-working time away.

Thus, when my application was approved by both the Onassis Hospital and the electives administration at Barts and the London, I felt very enthusiastic. But, as the day for reporting to the hospital in Greece was approaching, I started to feel anxious. I was feeling anxious about the conditions I would have to face in the hospital, about the behaviour of the medical and paramedical stuff, about my approach to the patients, about rules and regulations in the hospital etc. Sometimes, I was feeling like the first time I reported to a hospital in the UK in year 3.

On the contrary, the reality proved that my fears were wrong. My supervisor consultant at the Onassis Centre, Dr Voudris had planned a very interesting and organized rotation through almost all Hospital departments. From the very first day I was surrounded by a very friendly and professional team that

was very keen on helping and offering guidance and advice whenever needed.

Many things are almost identical between UK and Greece. The patients are always on the main focus. The day starts with the consultant ward round and making the plan of the day for each specific patient. Apart from the typical nursing staff, the hospital had a nurse (under the name Nurse of Communication) with tasks similar to the NHS Specialist Nurses.

Some things that I found different or difficult were the following. In the NHS we are trained to use (with very few exceptions) generic drug names, whilst in Greece they use mainly specific trade drug names. In some cases the BNF proved a lifesaver, but at the beginning my... favorite question was" what kind of drug is that"? Another one difference I noticed was the fact that unlike NHS hospitals, there are no clinical pharmacists in the wards. I believe that this increases dramatically the stress of the doctors, especially of the new not experienced ones. Something that I found different (but very comfortable at the same time) is that I was allowed to wear jeans in the wards.

About my future career, I believe that spending 5 weeks in very specialized tertiary hospital, dealing strictly heart diseases was an amazing experience. I am finding cardiology a very interesting specialty and the idea of seeing me as a cardiologist in the future is gradually becoming more intense in my mind.