

ELECTIVE (SSC5c) REPORT (1200 words)

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

What are the prevalent cardiovascular conditions in Germany? How do they differ from the rest of Europe?

Cardiovascular disease is the most common cause of death in Germany. Elderly people are particularly affected, however, the prevalence of cardiovascular disease under the age of 50 is increasing. Around 30-40% of people in Germany have hypertension. Every second person over the age of 60 is affected by this condition. Coronary heart disease (CHD) affects around 1.5 million people in Germany. It is the most common type of heart disease and cause of myocardial infarctions. The disease is caused by atherosclerotic plaques building up along the inner walls of the coronary arteries, which narrows the arteries and reduces blood flow to the heart. CHD remains a major public health burden in Germany and around the globe, despite dramatic advances in medicine. According to the WHO, cardiovascular disease causes more than half of all deaths across the European Region accounting for over 4 million deaths in Europe each year. Death rates from CHD are generally higher in Central and Eastern Europe than in Northern, Southern and Western Europe. CHD is the leading cause of death in Europe, accounting for more than 2 million deaths each year. More than 1 in 5 deaths of women and men are from CHD. [1,2]

How are cardiac services organised and delivered in Germany? How does it differ from the UK?

Health care cover in Germany is universal, as in the UK, and the treatment of unemployed is covered by the state. However, this universal care is not funded by a centrally collected tax, but by so called Krankenkasse or sickness funds, a system that dates back to Otto von Bismarck's Health Insurance Bill of 1883, making it the world's oldest national social health insurance system. It is compulsory for every German citizen to sign up with a sickness fund, which is paid for with joint employer-employee contributions. 11% of the German population are privately insured. Moreover, Germany continues to spend a higher amount per capita on healthcare than the UK. Most recent figures show the country spending 11.3% of its GDP on healthcare, which is 2% above the OECD average. Unlike in the UK, Germans can visit any doctor they like and don't require a referral by the GP to see a specialist. For instance, patients could ring the cardiology department and make an appointment to see a cardiologist. I have noticed that access to secondary care in Germany is very easy and waiting times are not too lengthy either. [3]

Describe the different types of treatment available for ischaemic heart disease in Germany.

Ischaemic heart disease (IHD) can be managed effectively with a combination of lifestyle changes, medications and, in some cases, medical procedures and surgery. Making simple lifestyle changes, such as stopping smoking, eating healthily, exercising regularly and maintaining a healthy weight, can help reduce the risk of further cardiovascular events. All patients with ischaemic heart disease require medical therapy to prevent disease progression and recurrent cardiovascular events. Three classes of medications are essential to therapy which include anti-platelet, anti-hypertensive and lipid-lowering agents. Procedures such as percutaneous coronary intervention (PCI) or coronary artery bypass surgery (CABG) may be used in severe disease. PCI, commonly known as coronary angioplasty, is a non-surgical procedure used to open stenotic coronary arteries. It involves inserting a deflated balloon on a catheter from the femoral or radial artery up to the coronary arteries in the heart. The balloon is inflated to open the blocked artery and improve blood flow. A drug-eluting stent is often placed at the site of blockage to prevent restenosis. This minimally invasive procedure was first developed in 1977 by Andreas Gruentzig, a German cardiologist and has since revolutionised the treatment of IHD without the need for open surgery, known as CABG, which is a procedure that bypasses stenotic arteries by harvesting the great saphenous vein of the leg and/or diverting left internal mammary artery to the left anterior descending artery. [4]

Reflect on the clinical experience that you have gained in Germany.

I was placed in the Outpatient department of cardiology, angiology and pneumology at the Heidelberg University Hospital, which is one of the leading university hospital cardiology services in Germany. I had the opportunity to attend various clinics, including general cardiology, cardiomyopathy, heart failure, heart transplant, electrophysiology and pneumology clinics. Everyone was very friendly and keen to teach. I also had the opportunity to see my own patients, which was a valuable learning experience. I had to take focused histories and examinations, interpret ECGs and lung function tests and report Echo findings to the patients. I was also asked to explain certain procedures to the patient, including coronary angiograms and all the risks involved during the procedure. I thought that was a difficult task for me to do because I didn't know the lay terms in German, however, with the help of the doctors I was able to do that. I also had the opportunity to attend carotid doppler clinics and was allowed to practise it on patients with their consent, which was a great experience. This was the first time I have seen it being done. It was also interesting to see that every patient who has undergone a coronary angiogram had an ultrasound scan of the puncture site to exclude complications, such as aneurysms, AV fistulas and thrombosis. All in all, I had a great experience during my elective at the Heidelberg University Hospital with many opportunities to improve upon my clinical and practical skills. I have seen a variety of conditions and received great teaching, which has helped to improve my knowledge in cardiology. I had the chance to observe and get involved with various procedures and felt part of the team throughout. Everyone in the team was very approachable and keen to teach and this, in particular, has made this experience a very enjoyable one.

References:

[1] WHO (2015). Data and statistics-cardiovascular diseases [online]. Available at: <http://www.euro.who.int/en/health-topics/noncommunicable-diseases/cardiovascular-diseases/data-and-statistics>.

[2]Nichols, M., Townsend, N., Scarborough, P. et al. Cardiovascular disease in Europe 2014: epidemiological update. European Heart Journal. 2014; 10, 1093.

[3]Civitas (2013). Healthcare Systems: Germany [online]. Available at: <http://www.civitas.org.uk/nhs/download/germany.pdf>.

[4]NHS Choices (2014). Coronary heart disease [online]. Available at: <http://www.nhs.uk/Conditions/Coronary-heart-disease/Pages/Introduction.aspx>.