

Multiple Choice Questions

- 1. Elevated resting heart rate (eRHR) has been shown to be a risk marker for cardiovascular disease. Which ONE of the following mechanisms for the effect of eRHR is NOT true?**
 - A. eRHR enhances the expression of pro-atherosclerotic genes in vascular endothelium
 - B. eRHR leads smooth muscle cells to proliferate and migrate to the intima
 - C. eRHR increases the stiffness of the ventricular wall
 - D. eRHR decreases overall myocardial oxygen consumption per minute
 - E. eRHR exacerbates myocardial ischaemia and arrhythmias
- 2. For which ONE of these patient groups is it most reasonable, in 2015, to choose the option of chimney stent-graft technique to extend sealing zones in the aorta?**
 - A. Urgent symptomatic patients
 - B. ASA 4 patients carrying a high anaesthetic risk
 - C. ASA 4 patients who have been declined open surgery
 - D. Urgent patients who are not fit for open surgery
 - E. Patients who have had a complication after EVAR or TEVAR
- 3. Which ONE of the following statements can be made based upon an initial non-intervention rate of 17% in men with a screen-detected abdominal aortic aneurysm (AAA) measuring over 5.4cm?**
 - A. The vascular service in the corresponding region is poor
 - B. The vascular service in the corresponding region is of a high quality
 - C. The rate is an inevitable consequence of screen-detected AAA
 - D. The rate is a preventable consequence of screen-detected AAA
 - E. The screening program in the corresponding region is ineffective
- 4. What is the most catastrophic consequence directly attributable to the use of left heart bypass compared to the use of deep hypothermic circulatory arrest, during the performance of open aortic surgery for chronic type B dissections?**
 - A. Retrograde type A dissection.
 - B. Permanent paraplegia.
 - C. Multiple organ ischaemia.
 - D. Acute renal dysfunction.
 - E. Pulmonary bleeding.
- 5. How has the amputation rate in patients with diabetes mellitus (DM) and arterial occlusive disease (AOD) changed from 2006 to 2012 in Germany?**
 - A. The overall amputation rate per patient increased during this period.
 - B. The amputation rate among patients with DM or AOD decreased during this period.
 - C. The absolute number of amputations per patient with DM or AOD in a year decreased during this period.
 - D. The amputation rate in the entire population in Germany decreased during this period.
 - E. The amputation rate increased among patients with DM but not among those with AOD, during this period.



6. Which ONE of the following measurement tools for symptoms of varicose veins is compliant with the FDA guidelines for patient reported outcomes?
- A. VEINES QoI
 - B. SQOR- V
 - C. Aberdeen Varicose Vein Score
 - D. VVSymQ
 - E. VCSS
7. Which ONE of the following statements is NOT correct based on a cost effectiveness analysis performed in 2015 by Marsden et al to inform NICE clinical guidelines on symptomatic varicose veins?
- A. Interventional treatments are cost-effective compared to compression therapy
 - B. Endothermal ablation was found to be the most cost-effective intervention
 - C. Endothermal ablation was more expensive than ultrasound guided sclerotherapy
 - D. Surgery is the most expensive treatment
 - E. Endothermal ablation should be the initial intervention offered to all patients
8. Which ONE of the following statements is true about the outcome of the recently performed international validation of SWEDVASC registry data for aortic and carotid procedures?
- A. Data about smoking was the most under-reported variable
 - B. Underestimation of mortality rendered the registry data unreliable
 - C. Underestimation of major morbidities rendered the registry data unreliable
 - D. Preoperative risk factors were registered thoroughly across all sites
 - E. External and internal validity of the registry was good
9. Which ONE of the following has been shown to increase the risk of the combined outcome of stroke, myocardial infarction or death within 30 days of carotid endarterectomy?
- A. Male sex
 - B. Increased diastolic blood pressure
 - C. General versus local anaesthesia
 - D. Using a patch
 - E. Not using a shunt
10. Please assess the following statement: (1) Each AAA patient should be considered a high risk cardiovascular patient and receive statin treatment irrespectively of plasma cholesterol levels BECAUSE (2) statin treatment reduces aneurysm progression.
- A. (1) and (2) are both true and linked causally
 - B. (1) and (2) are both true, but NOT linked causally
 - C. only (1) is true
 - D. only (2) is true
 - E. neither statement is correct
11. According to a descriptive study on aortic arch morphology, which patient population displayed the longest distance between the left main coronary and the left common carotid artery on average?
- A. Trauma patients
 - B. Aneurysm patients
 - C. Dissection patients
 - D. Distances were similar between dissection and aneurysm patients
 - E. Distances were similar between aneurysm and trauma patients

12. Which ONE of the following statements regarding differences between male and female patients with peripheral artery disease (PAD) is NOT correct?

- A. PAD is increasing worldwide for both men and women.
- B. The cardiovascular burden is identical for both men and women.
- C. The total population burden for PAD is greater for women than for men.
- D. Severity of symptoms and quality of life differs for male and female patients with PAD
- E. Previous studies have shown lower levels of appropriate medical therapy for female patients than male patients with PAD.

13. Which ONE of the following statements is TRUE about stem cell therapy in critical limb ischemia?

- A. There is no need for a placebo group if hard endpoints are used, like amputation, survival and amputation-free survival.
- B. Intraarterial administration of stem cells is clearly more effective than intramuscular administration.
- C. Although the first small and non-placebo controlled trials showed advantages of stem cells, more recently larger and placebo-controlled trials did not show significant effects of stem cell therapy.
- D. The first trials on stem cell therapy showed no effects of this treatment, but more recent sophisticated techniques showed a clear effect of cell therapy in critical limb ischemia.
- E. Stem cell therapy for critical limb ischemia is a last-resort treatment option with serious and dangerous side effects.

14. Which ONE of the following is NOT one of the main problems when conducting a clinical trial on stem cell therapy for critical limb ischemia?

- A. Amputation rates drop, causing the need for larger study populations.
- B. It is unknown what administration route is most effective (intraarterial, intravenous or intramuscular).
- C. It is unknown what cell type or cell mix is most effective.
- D. There is no consensus about the definition of 'no-option critical limb ischemia', making study populations very heterogenous.
- E. Stem cell therapy is dangerous, with a large amount of adverse events and complications.

15. Which ONE of the following statements is TRUE regarding the pathophysiology of haemodialysis access induced distal ischaemia (HAIDI) in patients with an autologous arteriovenous haemodialysis fistula:

- A. Reversal of blood flow distal to the arteriovenous anastomosis is characteristic for HAIDI.
- B. Generalized arteriosclerosis and arterial wall stiffness are major factors in the pathophysiology of HAIDI.
- C. Loss of blood pressure around the arteriovenous anastomosis may significantly contribute to the development of HAIDI.
- D. Both A and C are correct
- E. Both B and C are correct

Answers from issue 50/5 (November 2015)

1D 2C 3B 4D 5B 6D 7A 8D 9D 10B 11C 12C 13A 14E