

ASSESSMENT OF 30 MCQs

FPSC NO : 25
RISK FACTORS IN MACROVASCULAR
SUBMISSION DEADLINE : 20 MARCH 2008

INSTRUCTIONS

- κ Attempt all the following multiple choice questions.
- κ There is only one correct answer for each question.
- κ Shade your choice on the given answer sheet using only a **2B pencil**.
- κ The answer sheet should be sent to the College of Family Physicians Singapore for marking before the submission deadline.

1. **Which one of the following statements about atherosclerosis and atherothrombosis is CORRECT?**
 - A. Atherosclerosis is responsible for half of the cases of coronary artery disease, stroke and peripheral arterial disease.
 - B. In a particular individual, atherosclerosis has a predilection to affect only a particular vascular bed.
 - C. Atherosclerosis begins as fibro-fatty plaques in late adulthood and culminates in the plaques being dislodged in later life.
 - D. Atherosclerosis and atherothrombosis have different cardiovascular risk factors.
 - E. Disruption of atheromatous plaques with superimposed thrombosis is the common pathophysiologic pathway of cardiovascular diseases.
2. **Which one of the following statements about non-modifiable risk factors for atherothrombosis is CORRECT?**
 - A. Increasing age is a minor risk factor for cardiovascular disease.
 - B. History of maternal myocardial infarct at age 63 years is a risk factor.
 - C. Incidence of cardiovascular disease is 3-4 times higher in men compared to pre-menopausal women.
 - D. After menopause the risk of women developing cardiovascular disease increases moderately.
 - E. Indians have a higher risk for atherothrombosis because of the higher prevalence of hypertension amongst them.
3. **Which one of the following statements about dyslipidaemia is CORRECT?**
 - A. A low LDL-cholesterol is a moderate atherothrombotic risk factor in CAD events.
 - B. HDL-cholesterol is paradoxically increased by cigarette smoking.
 - C. Raised triglycerides is as strongly associated with CAD events as raised LDL-cholesterol.
 - D. Increased apolipoprotein B is associated with lowered CAD events.
 - E. A reduction of LDL-cholesterol of 1 mmol/L (40 mg/dL) is accompanied by 20% reduction of CAD events.
4. **Which one of the following statements about modifiable atherothrombotic risk factors is CORRECT?**
 - A. Systolic blood pressure is not as strong a cardiovascular risk factor as diastolic blood pressure.
 - B. The relative risk of myocardial infarct, stroke and death is increased 4 fold in those with type 2 diabetes mellitus independent of other cardiovascular risk factors.
 - C. For Asians the waist circumference cut-offs of 100 and 90cm for males and females respectively are used to define excess risk for atherothrombosis.
 - D. A beneficial effects of avoiding a sedentary lifestyle through exercise are elevation of HDL-cholesterol, less insulin resistance, reduction of blood pressure, and weight loss.
 - E. After a long history of smoking its cessation has little beneficial effect on reducing myocardial infarct.
5. **Which one of the following statements about atherothrombotic risk factors is CORRECT?**
 - A. The decreased relative risk of death from cardiovascular disease in moderate drinkers is mediated by a reduction in LDL-cholesterol.
 - B. A higher than predicted peak heart rate during exercise is predictive of coronary artery disease.
 - C. Patients with microalbuminuria and chronic kidney disease have increased cardiovascular disease.
 - D. Coronary calcium score correlates with risk of cardiovascular events only in symptomatic patients.
 - E. The Women's Health Initiative confirmed that HRT has a cardioprotective effect.
6. **The target blood pressure for a diabetic without complications should at least be:**
 - A. 140/90 mm Hg.
 - B. 135/85 mm Hg.
 - C. 130/80 mm Hg.
 - D. 125/75 mm Hg.
 - E. 120/80 mm Hg.
7. **The target LDL cholesterol for a diabetic without complications should be less than:**
 - A. 130 mg/dl.
 - B. 120 mg/dl.
 - C. 110 mg/dl.
 - D. 100 mg/dl.
 - E. 90 mg/dl.
8. **The target LDL cholesterol for a diabetic with other multiple cardiac risk factors should be less than:**
 - A. 60 mg/dl.
 - B. 70 mg/dl.
 - C. 80 mg/dl.
 - D. 90 mg/dl.
 - E. 100 mg/dl.

9. Which of the following levels of high sensitive assays of C-reactive protein (hs CRP) should be interpreted as high cardiovascular risk? More than:
- 0.25 mg/litre.
 - 0.5 mg/litre.
 - 0.75 mg/litre.
 - 1-2 mg/litre.
 - 3 mg/litre.
10. Which of the following is a novel atherosclerotic risk factor?
- Methioninemia.
 - Homocysteinaemia.
 - Low level of plasma fibrinogen.
 - Raised apolipoprotein A1.
 - Low apolipoprotein B.
11. About the composition of the therapeutic lifestyle changes (TLC) diet described in the National Cholesterol Education Programme (NCEP) which pair of the following associations is TRUE?
- Total fat – 25-35% of total calories.
 - Saturated fat – 10% of total calories.
 - Polyunsaturated fat – 15% of total calories.
 - Monounsaturated fat – 15% of total calories.
 - Trans-fatty acids – 2% of total calories.
12. Which of the following dietary interventions is likely to produce the most health gain? Locating the health promotion in:
- Primary care settings.
 - Population wide settings.
 - Workplaces.
 - Non-health care settings.
 - Dietitians' offices.
13. Which of the following is the LEAST USEFUL task of the family physician in dietary counseling as shown by Cochrane reviews?
- Spend time giving detailed individual dietary advice.
 - Highlight the risks and consequences to the patient of a poor diet.
 - Provide self-help resources on dietary improvements.
 - Monitor the patient's motivation and compliance to lifestyle changes.
 - None of the above.
14. With regards to the Dietary Approaches to Stopping Hypertension (DASH) Eating Plan, which of the following is a feature of the Eating Plan?
- High in polyunsaturated and low in monounsaturated fat.
 - High in lean red meat.
 - Very low in total fat.
 - High in fruits and vegetables.
 - High in bread and cereals.
15. Mr A is a 35-year-old office worker who does not exercise regularly. His weight is 70kg. His daily eating plan is as follows: grains 6-8 servings, vegetables 2 servings, fruits 2 servings, fat-free or low fat milk 1 serving, nuts, seeds, and legumes 0-1 servings, and red meat 2-3 servings. What changes would he need to make if he decides to change to the DASH Eating Plan?
- Increase the vegetables to 3-4 servings.
 - Increase the fruits to 4-5 servings.
 - Change the meat to poultry, and fish.
 - Increase the fat-free or low-fat milk to 1-1.5 servings.
 - All of the above.
16. Which one of the following activities burns the most calories for every 30 minutes?
- Running 5 km in 30 mins.
 - Rope Jumping.
 - Cross country running.
 - Mountain bicycling.
 - Tennis.
17. Regarding the benefits of exercise, which one of the following statements is CORRECT?
- Exercise is more effective than dietary restriction for weight loss.
 - Exercise alone results in 70-75% of weight loss from body fat.
 - Exercise improves functional capacity making daily activities more enjoyable.
 - Exercise reduces coronary artery disease, colon cancer, and type 1 diabetes mellitus.
 - In old people, endurance training helps to prevent weight loss.
18. The exercise prescription for weight loss should:
- primarily involve resistance exercise.
 - involve exercising 5 times a week for at least 60 minutes each time.
 - have a total exercise volume of 8 hours per week.
 - aim to expend in excess of 2000 kcal a week.
 - achieve an intensity of 90% of maximal heart rate.
19. Which one of the following statements about exercise is CORRECT?
- For the purpose of weight loss, exercise duration is more important than intensity.
 - Exercise progression should be done rapidly over 2-3 weeks.
 - The best time to exercise is in the mornings after a 7-hour fast.
 - Fat utilization only starts after 40 minutes of moderate intensity exercise.
 - Resistance training increases the metabolic rate and is therefore more effective than aerobic exercise for weight loss.
20. Which one of the following statements about exercise activity is CORRECT?
- Running burns more calories and is safer than cycling.
 - Using the stair master not only safer but just as good in burning calories as stair climbing.
 - Skipping is a non-weight-bearing, low-impact sport.
 - Step aerobics and skipping are good recommendations for overweight subjects.
 - Cross training helps to reduce the risk of overuse injuries.
21. As a preventive programme, for each life-year saved, a hyperlipidaemia treatment programme costs:
- \$6,000.
 - \$12,000.
 - \$26,000.
 - \$196,000.
 - \$250,000.
22. In a community of adults, what is the percentage of people who will be at the contemplative stage of change for smoking cessation?
- 35%.
 - 30%.
 - 25%.
 - 20%.
 - 15%.

23. **What is the mechanism of tobacco dependence?**
 A. Addiction.
 B. Chronic disease.
 C. Poor will power.
 D. Peer influence.
 E. Habit.
24. **Mr S is filling up a Karl Fagerstrom Nicotine Tolerance Questionnaire. He smokes 40 cigarettes a day and he smokes his first cigarette within 5 minutes of waking up. He would have already how many points?**
 A. 10 points.
 B. 8 points.
 C. 6 points.
 D. 4 points.
 E. 2 points.
25. **Mr T wishes to embark on a smoking cessation programme. Which of the following may cause him to have a fit?**
 A. Cold turkey treatment.
 B. Varenicline.
 C. Bupropion.
 D. Nicotine patch.
 E. None of the above.
26. **Which one of the following statements regarding hypertension as a modifiable risk factor for CAD is CORRECT?**
 A. Systolic blood pressure is a weaker risk factor compared to diastolic blood pressure.
 B. The co-existence of other modifiable risk factors increase CAD risk arithmetically.
 C. A healthier lifestyle is an optional intervention given the effectiveness of anti-hypertensive drugs available.
 D. Isolated systolic blood pressure is an established major risk factor.
 E. As a risk factor, both the systolic blood pressure and the diastolic blood pressure need to be simultaneously raised.
27. **Which one of the following statements regarding diabetes mellitus as a CAD risk factor is CORRECT?**
 A. Diabetes is considered a CAD-risk equivalent.
 B. Aspirin is recommended even in the absence of known CAD if the patient has diabetes mellitus.
 C. ACEI's are recommended as initial anti-hypertensive agent of choice, diabetes mellitus is present.
 D. An LDL cholesterol target of less than 100mg/dL is recommended.
 E. All of the above.

28. **CAD-risk equivalents are conditions that result in the individual being at high risk of developing CAD. Which of the following is NOT CAD-risk equivalent?**
 A. Morbid obesity.
 B. Transient Ischaemic Attack.
 C. Intermittent claudication.
 D. Abdominal aortic aneurysm.
 E. Diabetes Mellitus.
29. **Which one of the following statements about statins is CORRECT?**
 A. They have been shown to reduce CAD events in primary but not secondary prevention trials.
 B. They may cause non-bacterial endocarditis.
 C. They are very effective in lowering elevated triglyceride levels.
 D. They are very dramatic in increasing HDL cholesterol levels.
 E. They are indicated in a patient with LDL-cholesterol levels of 100 mg/dL (2.6 mmol/L).
30. **Which one of the following statements regarding drug therapy for hypertension is CORRECT?**
 A. ACEI's are recommended for patients with diabetes mellitus but not chronic renal disease.
 B. Beta-blockers are contraindicated in patients with heart failure.
 C. Calcium channel blockers are useful in the treatment of elderly patients with isolated systolic hypertension.
 D. Up to 30% of patients with hypertension require two or more medications to control their blood pressure.
 E. In patients with diabetes mellitus, the BP target is less than 120/80 mm Hg.

Distance Learning Module – FPSC No: 24 "Adolescent Health" Answers to 30 MCQ Assessment					
Q1.	A	Q11.	B	Q21.	C
Q2.	B	Q12.	C	Q22.	E
Q3.	C	Q13.	B	Q23.	C
Q4.	C	Q14.	C	Q24.	D
Q5.	E	Q15.	D	Q25.	A
Q6.	E	Q16.	A	Q26.	A
Q7.	C	Q17.	E	Q27.	C
Q8.	D	Q18.	C	Q28.	E
Q9.	E	Q19.	E	Q29.	C
Q10.	B	Q20.	D	Q30.	B