

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.
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:
 - A. 0.25 mg/litre.
 - B. 0.5 mg/litre.
 - C. 0.75 m/litre.
 - D. 1-2 mg/litre.
 - E. 3 mg/litre.
10. Which of the following is a novel atherosclerotic risk factor?
 - A. Methioninemia.
 - B. Homocysteinaemia.
 - C. Low level of plasma fibrinogen.
 - D. Raised apolipoprotein A1.
 - E. 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?
 - A. Total fat – 25-35% of total calories.
 - B. Saturated fat – 10% of total calories.
 - C. Polyunsaturated fat – 15% of total calories.
 - D. Monounsaturated fat – 15% of total calories.
 - E. 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:
 - A. Primary care settings.
 - B. Population wide settings.
 - C. Workplaces.
 - D. Non-health care settings.
 - E. Dietitians' offices.
13. Which of the following is the LEAST USEFUL task of the family physician in dietary counseling as shown by Cochrane reviews?
 - A. Spend time giving detailed individual dietary advice.
 - B. Highlight the risks and consequences to the patient of a poor diet.
 - C. Provide self-help resources on dietary improvements.
 - D. Monitor the patient's motivation and compliance to lifestyle changes.
 - E. 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?
 - A. High in polyunsaturated and low in monounsaturated fat.
 - B. High in lean red meat.
 - C. Very low in total fat.
 - D. High in fruits and vegetables.
 - E. 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?
 - A. Increase the vegetables to 3-4 servings.
 - B. Increase the fruits to 4-5 servings.
 - C. Change the meat to poultry, and fish.
 - D. Increase the fat-free or low-fat milk to 1-1.5 servings.
 - E. All of the above.
16. Which one of the following activities burns the most calories for every 30 minutes?
 - A. Running 5 km in 30 mins.
 - B. Rope Jumping.
 - C. Cross country running.
 - D. Mountain bicycling.
 - E. Tennis.
17. Regarding the benefits of exercise, which one of the following statements is CORRECT?
 - A. Exercise is more effective than dietary restriction for weight loss.
 - B. Exercise alone results in 70-75% of weight loss from body fat.
 - C. Exercise improves functional capacity making daily activities more enjoyable.
 - D. Exercise reduces coronary artery disease, colon cancer, and type 1 diabetes mellitus.
 - E. In old people, endurance training helps to prevent weight loss.
18. The exercise prescription for weight loss should:
 - A. primarily involve resistance exercise.
 - B. involve exercising 5 times a week for at least 60 minutes each time.
 - C. have a total exercise volume of 8 hours per week.
 - D. aim to expend in excess of 2000 kcal a week.
 - E. achieve an intensity of 90% of maximal heart rate.
19. Which one of the following statements about exercise is CORRECT?
 - A. For the purpose of weight loss, exercise duration is more important than intensity.
 - B. Exercise progression should be done rapidly over 2-3 weeks.
 - C. The best time to exercise is in the mornings after a 7-hour fast.
 - D. Fat utilization only starts after 40 minutes of moderate intensity exercise.
 - E. 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?
 - A. Running burns more calories and is safer than cycling.
 - B. Using the stair master not only safer but just as good in burning calories as stair climbing.
 - C. Skipping is a non-weight-bearing, low-impact sport.
 - D. Step aerobics and skipping are good recommendations for overweight subjects.
 - E. 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:
 - A. \$6,000.
 - B. \$12,000.
 - C. \$26,000.
 - D. \$196,000.
 - E. \$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?
 - A. 35%.
 - B. 30%.
 - C. 25%.
 - D. 20%.
 - E. 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