



## EAPC Preventive Cardiology Certification

### MCQ Sample

**Q1 - A 65-year-old man who experienced a myocardial infarction two weeks ago was referred to exercise-based cardiac rehabilitation. The pre-exercise assessment, including tests of physical fitness was normal, and he was on optimal medical treatment.**

**What is the recommendation for strength training as part of the exercise-based cardiac rehabilitation program?**

- A 20-30% of 1RM with 20-25 repetitions in one set, twice a week
- B 20-30% of 1RM with 20-25 repetitions in one set, four times a week
- C 40-80% of 1RM with 12-15 repetitions in one set, twice a week
- D 40-80% of 1RM with 12-15 repetitions in one set, four times a week
- E 80-90% of 1RM with 3-5 repetitions in one set, once a week

**Q2- When advising for physical exercise of moderate intensity in general population, the ESC 2021 Guidelines on cardiovascular disease prevention in clinical practice recommend:**

- A For adults of all ages to strive for at least 30 - 75 min a week of moderate intensity
- B For adults of all ages to strive for at least 75 - 150 min a week of moderate intensity
- C For adults of all ages to strive for at least 150 - 300 min a week of moderate intensity
- D For adults of all ages to strive for at least > 300 min a week of moderate intensity
- E The ESC 2021 Guidelines on cardiovascular disease prevention do not set cutoff values for physical exercise

**Q3 - Oxygen pulse is a surrogate marker for:**

- A Dead space ventilation
- B Heart rate variability
- C Left atrium pressure
- D Stroke volume
- E Ventilatory threshold

**Q4 - The minute ventilation/carbon dioxide production ( $VE/VCO_2$ ) slope determined by CPET is a marker for:**

- A Chronotropic incompetence
- B Dead space ventilation



- C Exercise capacity
- D Oscillatory ventilation
- E Ventilatory efficiency

**Q5 - Which of the following factors is associated with an increased relative risk of sudden cardiac arrest/death during moderate- to high-intensity distant running events?**

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- A Age < 35 years old
- B Family history of type 2 diabetes
- C Female sex
- D Sedentary life style
- E Sinus arrhythmia

**Q6 - When conducting an epidemiological study, which step comes first?**

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- A Obtaining approval for publication
- B Obtaining approval from an ethics committee
- C Obtaining approval from colleagues
- D Obtaining approval from participants
- E Obtaining approval from the Research and Development (R+D) in your institution

**Q7 - A 45-year-old endurance female athlete attended the sports cardiology clinic. A mitral valve prolapse was diagnosed at the age of 20-year-old. Echocardiography performed three months before the visit revealed a moderate mitral regurgitation, with no aortic stenosis. The left ventricle was 56mm (32mm/m<sup>2</sup>) and the ejection fraction was preserved. The ECG showed sinus bradycardia of 42 b.p.m, an incomplete right bundle branch block and T wave inversion in V1-V2.**

**Which should be the next step to provide accurate exercise recommendations?**

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- A Considering that the degree of the mitral regurgitation is moderate, no more evaluations are needed at this time
- B To perform a 24-hour Holter ECG monitoring and a maximal exercise test
- C To perform a cardiopulmonary exercise test
- D To perform an exercise echocardiography
- E To perform cardiac magnetic resonance imaging





**Q8 - An older patient with CVD presents at your office. There are indications that he/she can be frail as well, so you propose to execute a multidimensional geriatric evaluation (MGE). You already have data on/of: 6-minute walking test, number of medications, grip strength, geriatric depression scale, nutrition (MNA), co-morbidities, timed up and go test, and Katz scale (daily activities).**

**Which test is still missing?**

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- A Cardiopulmonary exercise test for VO<sub>2</sub>peak
- B Cognition (MMSE)
- C DEXA scan for muscle mass
- D None of the proposed answers: the test battery is complete
- E Quality of life questionnaire

**Q9 - A 35-year-old black triathlon elite athlete presented for pre-participation screening. Family history is unremarkable. He denied any symptoms. His ECG is shown.**

**What is the most appropriate next step?**

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- A 24-hour holter ECG monitoring
- B Cardiac magnetic resonance
- C Exercise stress testing
- D No need for further investigations
- E Transthoracic echocardiogram

**Q10 - A 45-year-old woman with a background of obesity and hypertension was referred to a cardiologist for lifestyle optimization.**

**Which lifestyle targets are included in the ESC guidelines recommendations?**

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- A Consume 30 grams of unsalted nuts per day
- B Consume at least 200g of fruit and vegetables per day
- C Limit alcohol consumption to a maximum of 100 grams per week
- D At least 150 to 300 minutes of moderate-intensity aerobic physical activity
- E All of the above

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**Answers : 1-C, 2-C, 3-D, 4-E, 5-D, 6-B, 7-B, 8-B, 9-E, 10-E**