

## CHAPTER 7. ISCHEMIC HEART DISEASE, SELF-ASSESSMENT QUESTIONS

1. A 50-year-old, nonsmoking woman has no significant past medical history. A physical exam and laboratory tests reveal the following: Height 5'4" (163 cm), weight 184 lb (83.6 kg), blood pressure 134/80 mm Hg, heart rate 70 beats/min, total cholesterol 184 mg/dL (4.76 mmol/L), LDL cholesterol 110 mg/dL (2.84 mmol/L), HDL cholesterol 46 mg/dL (1.19 mmol/L), and triglycerides 140 mg/dL (1.58 mmol/L). Which of the following are risk factors for IHD in this patient?
- A. Age, hypertension, dyslipidemia
  - B. Obesity
  - C. Age, dyslipidemia
  - D. Obesity, hypertension
  - E. Hypertension, dyslipidemia
2. Which of the following is characteristic of an atherosclerotic lesion in a patient with chronic stable angina?
- A. Thick fibrous cap
  - B. Thrombosis
  - C. Large lipid core
  - D. Plaque rupture
  - E. Platelet aggregation
3. A 47-year-old man has been prescribed sublingual nitroglycerin tablets for acute relief of angina symptoms. When counseling him on the proper use of sublingual nitroglycerin, which of the following statements is correct regarding when to call 9-1-1?
- A. Call 9-1-1 if symptoms have not subsided 5 minutes after administration

- B. Call 9-1-1 if symptoms have not subsided 30 minutes after administration
  - C. Call 9-1-1 prior to taking nitroglycerin
  - D. Take 1 tablet every 5 minutes as needed for a maximum of three doses; call 9-1-1 if symptoms remain 5 minutes after the third dose
  - E. Take one tablet every 8 to 12 hours; call 9-1-1 if dizziness occurs
4. A 65-year-old postmenopausal woman has a history of hypertension, dyslipidemia, and chronic stable angina. Her current medications are atenolol 50 mg PO daily, simvastatin 40 mg PO at bedtime, and SL nitroglycerin as needed. She has allergies/intolerances to aspirin (angioedema) and enalapril (cough). Which of the following should be added to her drug regimen to reduce her risk for cardiovascular events?
- A. clopidogrel
  - B. dipyridamole
  - C. niacin
  - D. nifedipine
  - E. ticagrelor
5. A 45-year-old man diagnosed with hypertension, diabetes, and IHD was recently hospitalized for unstable angina. A coronary angiogram performed during hospitalization revealed single vessel disease not amenable to PCI. He is currently taking carvedilol 6.25 mg PO twice daily, lisinopril 10 mg PO daily, and metformin 500 mg PO twice daily. His blood pressure is 126/78 mm Hg and heart rate is 62 beats/min. A fasting lipid profile shows the following: LDL cholesterol 127 mg/dL (3.28 mmol/L), HDL cholesterol 36 mg/dL (0.93 mmol/L), and triglycerides 157 mg/dL (1.77 mmol/L). He is a current smoker. What additional therapy should be considered to treat this patient's IHD and lower his risk of ischemic events?

- A. Add low-intensity statin (eg, pravastatin 20 mg/day).
- B. Add moderate-intensity statin (eg, lovastatin 40 mg/day)
- C. Add high-intensity statin (eg, atorvastatin 80 mg/day)
- D. Add prasugrel
- E. Add varenicline

6. A 53-year-old woman with a history of hypertension and dyslipidemia undergoes a thorough cardiac workup for new onset chest tightness and shortness of breath on exertion. A cardiac catheterization shows no significant coronary artery obstruction. She is believed to have microvascular disease. Her blood pressure is 148/90 mm Hg and heart rate is 74 beats/min. Her current medications include benazepril 10 mg PO daily and simvastatin 40 mg PO hs. What is the most appropriate therapy to manage her angina symptoms?

- A. Increase benazepril to 20 mg daily
- B. Add metoprolol
- C. Add aspirin
- D. Add doxazosin
- E. Add hydralazine

7. What is the recommended treatment duration of dual antiplatelet therapy following implantation of a drug eluting stent?

- A. 1 week
- B. 1 month
- C. 3 months
- D. 6 months
- E. At least 12 months

8. A 60-year-old obese woman with hypertension and dyslipidemia is being started on ranolazine for microvascular angina. Her current medications include aspirin 81 mg/day, lisinopril 10 mg daily, metoprolol 50 mg twice daily, and simvastatin 40 mg/day. A fasting lipid profile reveals the following: LDL cholesterol 65 mg/dL (1.68 mmol/L), HDL cholesterol 54 mg/dL (1.40 mmol/L), and triglycerides 108 mg/dL (1.22 mmol/L). What changes, if any, should be made to her statin regimen?

- A. Change to a low-intensity statin (eg, pravastatin 20 mg/day)
- B. Change to a high-intensity statin (eg, rosuvastatin 20 mg/day).
- C. Continue simvastatin 40 mg/day
- D. Reduce the dose of simvastatin to 20 mg/day
- E. Increase the dose of simvastatin to 80 mg/day

9. A 58-year-old woman with hypertension and coronary artery disease underwent percutaneous coronary intervention with placement of two drug eluting stents one week ago. Genotyping is done and reveals that she has the CYP2C19 poor metabolizer phenotype. Which of the following is the most appropriate antiplatelet therapy for this patient?

- A. Clopidogrel plus aspirin
- B. Clopidogrel plus prasugrel
- C. Prasugrel plus aspirin
- D. High dose aspirin
- E. Dipyridamole plus aspirin

10. A 56-year-old woman was recently diagnosed with ischemic heart disease. Her current medications include conjugated estrogen 0.625 mg/day, fish oil 1 gm twice daily, aspirin 81 mg

daily, atenolol 100 mg daily, lisinopril 20 mg daily, and rosuvastatin 20 mg daily. Which of the following changes to the patient's regimen are appropriate?

- A. Add clopidogrel
- B. Add vitamin E
- C. Change rosuvastatin to pravastatin
- D. Discontinue conjugated estrogen
- E. Discontinue fish oil

11. A 60-year-old man with a history of hypertension, diabetes, and dyslipidemia is being treated with lisinopril 10 mg PO daily, simvastatin 20 mg PO daily, and metformin XR PO 500 mg daily. His current blood pressure is 150/88 mm Hg and heart rate is 80 beats/min. He presents with complaints of chest pressure and shortness of breath occurring with exertion. He is diagnosed with variant angina. In addition to sublingual nitroglycerin, what is the most appropriate change to his drug therapy?

- A. Add amlodipine
- B. Add isosorbide mononitrate
- C. Add metoprolol
- D. Add ranolazine
- E. Add thiazide diuretic (eg, chlorthalidone)

12. A 55-year-old man with a history of dyslipidemia and ischemic heart disease had a myocardial infarction 3 months ago. His current medications are aspirin 81 mg PO once daily, metoprolol XL 200 mg PO daily, simvastatin 40 mg PO at bedtime, and sublingual nitroglycerin as needed. He continues to experience occasional symptoms of angina with exertion. His blood

pressure is 124/70 mm Hg, and his pulse is 60 beats/min. What is the most appropriate pharmacologic intervention?

- A. Taper off metoprolol and start verapamil
- B. Add isosorbide mononitrate
- C. Taper off metoprolol and start nifedipine
- D. Add diltiazem
- E. Switch metoprolol to atenolol

13. A 63-year-old woman with a past medical history of dyslipidemia and chronic stable angina treated with aspirin 81 mg PO once daily, atenolol 100 mg PO once daily, simvastatin 40 mg PO once daily, and sublingual nitroglycerin as needed. Her angina symptoms are currently well controlled. Her blood pressure is 148/90 mm Hg, and her pulse is 70 beats/min. What is the most appropriate addition to therapy to improve the management of this patient's ischemic heart disease?

- A. ramipril
- B. isosorbide dinitrate
- C. ranolazine
- D. verapamil
- E. bupropion

14. A 59-year-old man has a history of hypertension, dyslipidemia, ischemic heart disease, and pulmonary hypertension. He is currently taking aspirin 81 mg PO daily, atorvastatin 40 mg PO daily, ramipril 5 mg PO daily, metoprolol XL 100 mg PO daily, and sildenafil 20 mg PO thrice daily. His blood pressure is 102/76 mm Hg and heart rate is 60 beats/min. He continues to

experience ischemic symptoms with minimal exertion. What is the most appropriate addition to therapy to improve the management of this patient's ischemic heart disease?

- A. Add felodipine
- B. Add isosorbide mononitrate
- C. Add ranolazine
- D. Decrease metoprolol XL to 50 mg daily
- E. Increase metoprolol XL to 200 mg daily

15. A 68-year-old man with a history of hypertension, dyslipidemia, and chronic obstructive pulmonary disease was recently diagnosed with chronic stable angina. His current medications are chlorthalidone 25 mg PO daily, atorvastatin 40 mg PO at bedtime, salmeterol one inhalation every 12 hours, fluticasone MDI two puffs twice a day, and albuterol MDI one to two puffs every 4 hours prn. His vital signs are a heart rate of 86 beats/min and blood pressure of 150/90 mm Hg. In addition to sublingual nitroglycerin, what is the most appropriate change to his drug therapy?

- A. Start propranolol
- B. Start ranolazine
- C. Start amlodipine
- D. Start isosorbide mononitrate
- E. Start verapamil

## ANSWERS

- 1. B
- 2. A
- 3. A

4. A

5. C

6. B

7. E

8. D

9. C

10. D

11. A

12. B

13. A

14. C

15. E

