

CHAPTER 12. DYSLIPIDEMIAS, SELF-ASSESSMENT QUESTIONS

1. A 38-year-old woman presents to your clinic today with new onset chest pain that occurs after walking a few blocks. Her father had a heart attack at age 40. Her diet is low in saturated fats and cholesterol. The patient is otherwise healthy and does not smoke. Her lipid panel today is: total cholesterol 350 mg/dL (9.05 mmol/L), HDL cholesterol 40 mg/dL (1.03 mmol/L), and triglycerides 120 mg/dL (1.36 mmol/L). What is her non-HDL cholesterol and LDL cholesterol?
 - A. 310 mg/dL (8.02 mmol/L) and 286 mg/dL (7.40 mmol/L)
 - B. 390 mg/dL (10.09 mmol/L) and 334 mg/dL (8.64 mmol/L)
 - C. 310 mg/dL (8.02 mmol/L) and unable to calculate
 - D. 350 mg/dL (9.05 mmol/L) and 286 mg/dL (7.40 mmol/L)
 - E. 310 mg/dL (8.02 mmol/L) and 230 mg/dL (5.95 mmol/L)
2. What is this patient's primary target for intervention?
 - A. Triglycerides
 - B. LDL cholesterol
 - C. Non-HDL cholesterol
 - D. HDL cholesterol
 - E. Non-HDL and LDL cholesterol
3. What is your assessment of this patient's lipid disorder?
 - A. She has hypercholesterolemia and is likely polygenic
 - B. She has hypercholesterolemia and heterozygous familial hypercholesterolemia
 - C. She has hypertriglyceridemia
 - D. She has a combined dyslipidemia
 - E. She has homozygous familial hypercholesterolemia
4. According to the ACC/AHA guidelines, what intervention would be most appropriate for this patient?
 - A. Start simvastatin 80 mg daily
 - B. Start prescription omega-3 fatty acid esters 4 g daily
 - C. Start ezetimibe 10 mg daily
 - D. Start a high-intensity statin
 - E. Start gemfibrozil 600 mg twice daily
5. The patient returns to clinic after 4 months for follow-up and post percutaneous coronary intervention of her left anterior descending coronary artery with the following lipid panel: total cholesterol 230 mg/dL (5.95 mmol/L); triglycerides 100 mg/dL (1.13 mmol/L); HDL cholesterol 44 mg/dL (1.14 mmol/L); LDL cholesterol 166 mg/dL (4.29 mmol/L). According to the NLA guidelines, what are the non-HDL cholesterol and LDL cholesterol goals for this patient?
 - A. Less than 160 mg/dL (4.14 mmol/L) and less than 130 mg/dL (3.36 mmol/L)
 - B. Less than 130 mg/dL (3.36 mmol/L) and less than 100 mg/dL (2.59 mmol/L)
 - C. Less than 100 mg/dL (2.59 mmol/L) and less than 70 mg/dL (1.81 mmol/L)
 - D. At least a 50% reduction in atherogenic cholesterol
 - E. Cholesterol goals are not recommended

6. What would be the next appropriate intervention for this patient?

- A. Lomitapide 5 mg daily
- B. Fenofibrate 160 mg daily
- C. Ezetimibe 10 mg daily
- D. Prescription omega-3 fatty acid esters
- E. Change to atorvastatin 20 mg daily

7. Which type of therapy would be most appropriate for a 58-year-old woman with type 2 DM, evidence of end-organ damage and total cholesterol 210 mg/dL (5.43 mmol/L), HDL cholesterol 45 mg/dL (1.16 mmol/L), triglycerides 850 mg/dL (9.61 mmol/L), and non-HDL cholesterol 165 mg/dL (4.27 mmol/L)?

- A. Atorvastatin 10 mg daily
- B. Pravastatin 20 mg daily
- C. Cholestyramine one scoop twice daily
- D. Gemfibrozil 600 mg twice daily
- E. Alcohol and carbohydrate restriction

8. According to the NLA, which risk category does this patient best fit?

- A. Very High Risk
- B. High Risk
- C. Moderate Risk
- D. Low Risk
- E. Need more information to determine

9. Which of the following is *not* a secondary cause of dyslipidemia?

- A. Hypothyroidism
- B. Hyperthyroidism
- C. Diabetes
- D. Renal failure
- E. Protease inhibitors

10. For which patients would you consider calculating a quantitative risk score?

- A. Patients with three major ASCVD risk factors
- B. Patients with preexisting ASCVD
- C. Patients with HDL exceeding 50 mg/dL (1.29 mmol/L)
- D. Patients with two major ASCVD risk factors and not very high-risk or high-risk conditions.
- E. Patients with triglycerides exceeding 500 mg/dL (5.65 mmol/L)

11. A patient diagnosed with metabolic syndrome and CHD is taking atorvastatin 20 mg daily. His non-HDL cholesterol is 118 mg/dL (3.05 mmol/L) and LDL cholesterol is 78 mg/dL (2.02 mmol/L). His primary care physician has tried to increase atorvastatin to 40 mg; however, the patient complains of muscle pain and weakness shortly after the dose is escalated. His triglycerides are currently 198 mg/dL (2.24 mmol/L), HDL cholesterol is 39 mg/dL (1.01

mmol/L), and total cholesterol is 157 mg/dL (4.06 mmol/L). What would be the most appropriate intervention?

- A. Continue current therapy and monitor his progress
- B. Add ezetimibe 10 mg daily
- C. Add gemfibrozil 600 mg twice daily
- D. Add niacin ER 500 mg at bedtime
- E. Switch to pravastatin 20 mg at bedtime

12. Which lipoprotein particle is not considered to be atherogenic

- A. LDL
- B. IDL
- C. VLDL
- D. Small-dense LDL
- E. HDL

13. A 56-year-old woman who smokes two packs of cigarettes per day is admitted to the emergency room with severe left-sided chest pain and numbness down her left arm. She is diagnosed with acute coronary syndrome and undergoes percutaneous coronary intervention of her right coronary artery. Her lipid profile obtained in the emergency room reveals the following: total cholesterol 229 mg/dL (5.92 mmol/L), non-HDL cholesterol 181 mg/dL (4.68 mmol/L), LDL cholesterol 152 mg/dL (3.93 mmol/L), HDL cholesterol 48 mg/dL (1.24 mmol/L), and triglycerides 147 mg/dL (1.66 mmol/L). What would be the most appropriate initial therapy?

- A. Mipomersen 200 mg once weekly
- B. Pravastatin 40 mg daily
- C. Atorvastatin 80 mg daily
- D. Rosuvastatin 20 mg daily
- E. Pitavastatin 4 mg daily

14. Which side effect can be caused by statin therapy?

- A. Fatty liver
- B. New onset diabetes
- C. Gout
- D. Flushing
- E. None of the above

15. Choose the *best* answer that explains the difference in liver toxicity between IR niacin and sustained-release niacin.

- A. Sustained-release preparations result in higher blood levels of nicotinic acid
- B. Sustained-release preparations quickly saturate the low-affinity, high capacity metabolic pathway
- C. Sustained-release preparations have a slow absorption rate allowing more niacin to be metabolized by the amidation pathway
- D. Sustained-release niacin only causes liver toxicity when used in doses exceeding 4 g
- E. None of the above

ANSWERS

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