

NR 565 Week 2 Discussion: CPGs Related to Cardiac Conditions

Last Name	Client from Week 2 Lesson
S – V	Peter Xi

Describe your assigned client's situation. Why are they presenting to the clinic? What medications are they currently taking?

Peter Xi, a 55-year-old male, presents to the clinic complaining of slight RUQ discomfort and muscle aches, and other physical exams are within normal limits. The patient came in for a three-month follow-up appointment due to being placed on statin therapy for high cholesterol. Lab values indicate persistent high cholesterol level LDL level of >190 mg/dL, elevated liver function, and elevated creatine kinase tests. PMH includes stable angina, MI eleven months ago, and high cholesterol. The patient takes medications, including rosuvastatin (Crestor) 20 mg PO daily, aspirin 81 mg PO daily, and metoprolol (Lopressor) 50 mg PO BID.

Assess the applicable clinical practice guideline (CPG) for your assigned client linked on the same page in the lesson where the client's case is located. What treatment is recommended by the CPG for your client's situation?

Low-density lipoprotein (LDL) is the leading cause of atherosclerosis. Lipid-lowering therapy is necessary to decrease low-density lipoprotein cholesterol to a target level of less than 100 mg per dL, and practitioners should aim for an optimum goal of less than 70 mg per dL for very high-risk patients (Mesi et al., 2021). Statins inhibit the HMG CoA reductase, decreasing the hepatic cholesterol synthesis and increasing the cholesterol uptake from blood, thereby decreasing the concentration of LDL (Rosenthal & Burchum, 2021). Statin therapy is recommended for this patient due to a high LDL level of >190 mg/dL. The patient's LDL level is high despite taking rosuvastatin (Crestor) 20 mg PO daily. Based on the lab values of elevated liver function test and creatinine kinase, it is evident that this lipid-lowering drug therapy is not beneficial for the patient. The Clinical Practice Guideline (2023) recommends that in patients with CCD who are judged to be at very high risk and on maximally tolerated statin therapy with a low-density lipoprotein cholesterol level ≥ 70 mg/dL, ezetimibe can be beneficial to reduce further the risk of a major adverse cardiovascular event. Hence, adding ezetimibe (Zetia), a cholesterol-reducing medication, can decrease the total cholesterol level in the blood, increasing HDL cholesterol (Viriani et al., 2023).

Antiplatelet drugs like aspirin are recommended to prevent blood clots from forming. Antiplatelet therapy in patients with chronic coronary disease reduces thrombus formation within the coronary arteries by impeding platelet aggregation (Rosenthal & Burchum, 2021). The Clinical Practice Guideline (2023) recommends that in patients with chronic coronary disease with a previous history of MI and who are at low bleeding risk, extended dual antiplatelet therapy over twelve months for up to three years may be reasonable to reduce a major adverse cardiovascular event. This patient will benefit significantly from the use of aspirin as a secondary prevention due to his previous history of myocardial infarction.

The patient has a history of stable angina and myocardial infarction, so beta-blockers are prescribed to treat angina. Beta-blockers help slow the patient's heart rate and lower his blood pressure. These actions decrease the amount of oxygen the heart needs to work, which can help