

## Test Your Knowledge: Decision-Making Questions

The following questions are designed to help you and the faculty gauge your current understanding of key concepts related to the clinical content. Responses are confidential and reported in aggregate.

Your overall results will be provided to you once you press Submit.

**1. Which ONE of the following statements regarding the mechanism of action of PCSK9 inhibitors is CORRECT?**

- ☐ A) Reduced hepatic production of LDL-C by inhibition of ATP citrate lyase
- ☐ B) Increased LDL receptor (LDLR) surface density via increase in LDLR recycling and reduced LDLR degradation
- ☐ C) PCSK9 inhibitor binding to circulating LDL particle to prevent binding to LDLR
- ☐ D) Binds to LDLR to prevent uptake of circulating LDL particles

**2. Which ONE of the following patient groups has randomized control trial (RCT) evidence of cardiovascular outcomes benefits with PCSK9 inhibitors added to maximally tolerated statin therapy?**

- ☐ A) Acute coronary syndrome and history of heart failure with reduced ejection fraction
- ☐ B) Diabetes with Stage 3b chronic kidney disease
- ☐ C) Acute coronary syndrome and clinical ASCVD with high-risk features
- ☐ D) Clinical ASCVD and history of heart failure with preserved ejection fraction

**3. Which ONE of the following statements regarding the efficacy of LDL-C lowering with PCSK9 inhibitors is CORRECT?**

- ☐ A) LDL-C lowering efficacy is similar across patient groups, dietary patterns, and baseline lipid lowering therapy.
- ☐ B) LDL-C lowering efficacy is greatest in high-risk patients with diabetes
- ☐ C) LDL-C lowering efficacy is reduced in patients with elevated Lp(a)
- ☐ D) LDL-C lowering efficacy is enhanced in patients with homozygous familial hypercholesterolemia

**4. Which ONE of the following is CORRECT regarding the safety of PCSK9 inhibitors?**

- ☐ A) Patients with prediabetes have increased risk of new onset diabetes.
- ☐ B) There is a modest increase in risk of elevated hepatic transaminases which used in combination with high intensity statin therapy.
- ☐ C) There is no increase in symptoms of cognitive dysfunction in RCTs of PCSK9 inhibitors.
- ☐ D) Patients with history of statin intolerance have increased risk of recurrent myalgias with PCSK9 inhibitors.

**5.** A 68-year-old man with history of PCI of mid-LAD due to angina in 2012 presents with NSTEMI. At cardiac catheterization he is found to have 90% obstruction of proximal RCA and 50% stenosis of OM1. He had discontinued tobacco use following his previous PCI, but recently resumed 1/2 pack of cigarettes daily. He has well-controlled diabetes with most recent A1c of 6.6%. He has ankle brachial index of 0.8 but is not limited by claudication.

His current medications include aspirin 81 mg daily, clopidogrel 75 mg daily, metoprolol succinate 50 mg daily, lisinopril 5 mg daily, metformin 750 mg twice daily, and atorvastatin 40 mg daily.

His most recent lipid panel on atorvastatin 40 mg shows total cholesterol 151 mg/dL ( mmol/L), HDL-C 38 mg/dL ( mmol/L), LDL-C 108 mg/dL ( mmol/L), and triglycerides 125 mg/dL ( mmol/L). The patient has achieved 38% lowering of LDL-C from baseline.

**According to the ACC Expert Consensus Decision Pathway on the Role of Non-statin Therapies, which ONE of the following modifications to therapy is indicated?**

- ☐ A) No change in therapy is indicated as patient has achieved anticipated %LDL-C reduction with high-intensity statin therapy and LDL-C goal.
- ☐ B) Reduce atorvastatin to 20 mg daily and add PCSK9 inhibitor.
- ☐ C) Reduce atorvastatin to 20 mg daily and add ezetimibe.
- ☐ D) Continue current dose of statin and add either ezetimibe or PCSK9 inhibitor.

**6. Which ONE of the following statements is CORRECT regarding very low levels of LDL-C achieved with PCSK9 inhibitors added to maximally tolerated statin therapy?**

- ☐ A) Achieved LDL-C <20 mg/dL (0.5 mmol/L) is associated with increased risk of new onset diabetes.
- ☐ B) RCTs have demonstrated NO increase in adverse effects of very low levels of LDL-C in ~3 year follow-up with PCSK9 inhibitor therapy added to maximally tolerated statin therapy.
- ☐ C) When achieved LDL-C <30 mg/dL ( mmol/L) the intensity of statin therapy should be reduced to maintain LDL-C >50 mg/dL.
- ☐ D) When achieved LDL-C <30 mg/dL ( mmol/L), ezetimibe should be discontinued and statin intensity should be reduced.

**Thank you for your participation.**

**Email**

*Your email address is kept confidential and will not be shared.*

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