PEBC Cardiology Practice Test (Sample)

Study Guide

Everything you need from our exam experts!

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Introduction

Preparing for a certification exam can feel overwhelming, but with the right tools, it becomes an opportunity to build confidence, sharpen your skills, and move one step closer to your goals. At Examzify, we believe that effective exam preparation isn't just about memorization, it's about understanding the material, identifying knowledge gaps, and building the test-taking strategies that lead to success.

This guide was designed to help you do exactly that.

Whether you're preparing for a licensing exam, professional certification, or entry-level qualification, this book offers structured practice to reinforce key concepts. You'll find a wide range of multiple-choice questions, each followed by clear explanations to help you understand not just the right answer, but why it's correct.

The content in this guide is based on real-world exam objectives and aligned with the types of questions and topics commonly found on official tests. It's ideal for learners who want to:

- **Practice answering questions under realistic conditions,**
- **Improve accuracy and speed,**
- **Review explanations to strengthen weak areas, and**
- **Approach the exam with greater confidence.**

We recommend using this book not as a stand-alone study tool, but alongside other resources like flashcards, textbooks, or hands-on training. For best results, we recommend working through each question, reflecting on the explanation provided, and revisiting the topics that challenge you most.

Remember: successful test preparation isn't about getting every question right the first time, it's about learning from your mistakes and improving over time. Stay focused, trust the process, and know that every page you turn brings you closer to success.

Let's begin.

How to Use This Guide

This guide is designed to help you study more effectively and approach your exam with confidence. Whether you're reviewing for the first time or doing a final refresh, here’s how to get the most out of your Examzify study guide:

1. Start with a Diagnostic Review

Skim through the questions to get a sense of what you know and what you need to focus on. Your goal is to identify knowledge gaps early.

2. Study in Short, Focused Sessions

Break your study time into manageable blocks (e.g. 30 – 45 minutes). Review a handful of questions, reflect on the explanations.

3. Learn from the Explanations

After answering a question, always read the explanation, even if you got it right. It reinforces key points, corrects misunderstandings, and teaches subtle distinctions between similar answers.

4. Track Your Progress

Use bookmarks or notes (if reading digitally) to mark difficult questions. Revisit these regularly and track improvements over time.

5. Simulate the Real Exam

Once you're comfortable, try taking a full set of questions without pausing. Set a timer and simulate test-day conditions to build confidence and time management skills.

6. Repeat and Review

Don’t just study once, repetition builds retention. Re-attempt questions after a few days and revisit explanations to reinforce learning. Pair this guide with other Examzify tools like flashcards, and digital practice tests to strengthen your preparation across formats.

There’s no single right way to study, but consistent, thoughtful effort always wins. Use this guide flexibly, adapt the tips above to fit your pace and learning style. You've got this!

Questions

1. **In the CHADS-65 algorithm, which condition automatically indicates initiation of oral anticoagulation?**
   - **A. History of Coronary Artery Disease**
   - **B. No Risk Factors**
   - **C. Peripheral Artery Disease**
   - **D. Age Over 65**

2. **Which measurement most directly reflects the number of atherogenic lipoprotein particles?**
   - **A. ApoB**
   - **B. LDL-C**
   - **C. Triglycerides**
   - **D. HDL-C**

3. **Which of the following is a risk factor for atrial fibrillation?**
   - **A. Valvular heart disease**
   - **B. Hyperlipidemia**
   - **C. Obesity**
   - **D. Chronic obstructive pulmonary disease**

4. **Which statement is NOT a feature of stable angina?**
   - **A. Symptoms are predictable with exertion**
   - **B. Relief with nitroglycerin**
   - **C. Pain duration less than 10 minutes**
   - **D. Pain occurs at rest**

5. **Which drug classes are known to increase triglyceride levels?**
   - **A. Steroids; Oral estrogens; Bile acid sequestrants; Anabolic steroids**
   - **B. Statins; Niacin; Fibrates; Ezetimibe**
   - **C. Antihistamines; Antibiotics; SSRIs; Benzodiazepines**
   - **D. ACE inhibitors; ARBs; Diuretics; Beta blockers**

6. NYHA Class IV is defined by?

- **A. No limitation of physical activity**
- **B. Slight limitation of physical activity**
- **C. Marked limitation of physical activity**
- **D. Symptoms at rest**

7. What is the recommended initial therapy for a patient with a recent myocardial infarction?

- **A. Beta blockers and ACE inhibitors**
- **B. ACE inhibitors only**
- **C. Beta blockers only**
- **D. Calcium channel blockers and ACE inhibitors**

8. Ventricular fibrillation is characterized by what?

- **A. No organized electrical activity in the ventricles**
- **B. Coordinated electrical activity with rapid rate**
- **C. Regular sinus rhythm**
- **D. Atrioventricular dissociation**

9. In heart failure management, an additional diuretic is typically given when a patient has gained more than how many kilograms over their dry weight for more than 24 hours?

- **A. >2 kg over dry weight for more than 24 hours**
- **B. >5 kg over dry weight for more than 24 hours**
- **C. >1 kg over dry weight for more than 12 hours**
- **D. >3 kg over dry weight for more than 24 hours**

10. Which presentation most suggests a pulmonary embolism?

- **A. Chest pain and fever**
- **B. Shortness of breath, chest pain, tachycardia, tachypnea, dizziness**
- **C. Dizziness alone**
- **D. Nausea**

Answers

1. D
2. A
3. A
4. D
5. A
6. D
7. A
8. A
9. A
10. B

Explanations

1. In the CHADS-65 algorithm, which condition automatically indicates initiation of oral anticoagulation?

A. History of Coronary Artery Disease

B. No Risk Factors

C. Peripheral Artery Disease

D. Age Over 65

In atrial fibrillation, stroke risk grows with age, and CHADS65 uses a simple, decisive trigger: being 65 years or older automatically prompts starting oral anticoagulation. This age threshold reflects the substantial stroke risk that comes with advancing age, and in this rule the benefit of preventing stroke generally outweighs the bleeding risk, even if other risk factors aren't present. So an age over 65 alone is enough to initiate anticoagulation. The other factors listed—history of coronary artery disease, peripheral artery disease, or having no risk factors—don't by themselves automatically mandate anticoagulation under this algorithm. They may influence risk assessment in broader scoring systems, but CHADS65 centers on age as the automatic trigger.

2. Which measurement most directly reflects the number of atherogenic lipoprotein particles?

A. ApoB

B. LDL-C

C. Triglycerides

D. HDL-C

Apolipoprotein B directly reflects how many atherogenic lipoprotein particles are circulating. Each particle that can contribute to atherosclerosis carries a single ApoB molecule, so the concentration of ApoB in the blood is essentially a count of these particles. That makes it the measurement that most directly represents particle number. LDL cholesterol, on the other hand, measures the cholesterol content inside LDL particles. The number of particles can be high even if LDL-C is not markedly elevated, especially if the particles are small and carry less cholesterol per particle, so LDL-C doesn't reliably indicate particle number. Triglycerides reflect the amount of triglyceride within triglyceride-rich lipoproteins like VLDL and chylomicrons, not how many atherogenic particles are present. HDL cholesterol relates to protective HDL particles and not to the count of atherogenic particles. So ApoB is the best indicator of the actual number of atherogenic lipoprotein particles.

3. Which of the following is a risk factor for atrial fibrillation?

A. Valvular heart disease

B. Hyperlipidemia

C. Obesity

D. Chronic obstructive pulmonary disease

Atrial fibrillation develops when the atrial tissue becomes electrically unstable due to structural changes in the heart. Valvular heart disease, especially conditions that affect the mitral valve, causes increased pressure and volume load on the left atrium. This leads to left atrial enlargement and fibrosis, creating a substrate that favors reentrant electrical circuits and disorganized atrial activity. Because of this direct impact on atrial structure and function, valvular heart disease is a classic risk factor for atrial fibrillation. Other factors listed can contribute to AF in different ways, but they do not produce the same direct atrial substrate as valvular lesions.

4. Which statement is NOT a feature of stable angina?

A. Symptoms are predictable with exertion

B. Relief with nitroglycerin

C. Pain duration less than 10 minutes

D. Pain occurs at rest

Stable angina presents as chest discomfort triggered by activity or stress and rapidly relieved by rest or nitroglycerin. This pattern happens because a fixed narrowing from atherosclerotic plaque limits blood flow, so the heart's oxygen demand during exertion outpaces supply, producing predictable symptoms. Rest or nitroglycerin lowers oxygen demand and improves blood flow, resolving the pain. The pain is typically brief, often a few minutes. Pain occurring at rest is not a feature of stable angina because resting symptoms suggest an unstable pattern or other causes (such as myocardial ischemia from plaque rupture or vasospastic angina). In those cases, the situation is more acute and not the predictable, exertion-related picture seen with stable angina.

5. Which drug classes are known to increase triglyceride levels?

A. Steroids; Oral estrogens; Bile acid sequestrants; Anabolic steroids

B. Statins; Niacin; Fibrates; Ezetimibe

C. Antihistamines; Antibiotics; SSRIs; Benzodiazepines

D. ACE inhibitors; ARBs; Diuretics; Beta blockers

The question tests which medications can raise triglyceride levels. Several drug classes can push triglycerides up by altering hepatic production or clearance of triglyceride-rich lipoproteins. Glucocorticoids (steroids) stimulate lipolysis and increase hepatic synthesis and secretion of VLDL, which raises triglycerides. Oral estrogens similarly boost hepatic production of triglyceride-rich lipoproteins, especially in individuals with underlying risk. Anabolic steroids disrupt lipid metabolism and often raise triglycerides while lowering HDL. Bile acid sequestrants, though useful for lowering LDL, can provoke a compensatory increase in hepatic VLDL production and thus raise triglycerides in some patients, particularly if baseline triglycerides are elevated. In contrast, the other groups listed are not known for causing a meaningful rise in triglycerides (statins and fibrates typically lower TG, ezetimibe has little TG impact, and most antihistamines, antibiotics, SSRIs, benzodiazepines, and many antihypertensives are lipid-neutral or not major TG-raisers).

6. NYHA Class IV is defined by?

A. No limitation of physical activity

B. Slight limitation of physical activity

C. Marked limitation of physical activity

D. Symptoms at rest

NYHA functional classification describes how heart failure limits daily activity. In the most advanced stage, symptoms are present even at rest, and any physical activity tends to worsen them. This is the essence of Class IV: patients experience symptoms at rest and cannot engage in any activity without discomfort. The other levels describe progressively lesser limitations: no limitation with ordinary activity means symptoms don't appear until you push beyond everyday tasks; slight limitation means comfortable at rest but ordinary activity causes symptoms; marked limitation means comfortable at rest, but less than ordinary activity causes symptoms.

7. What is the recommended initial therapy for a patient with a recent myocardial infarction?

A. Beta blockers and ACE inhibitors

B. ACE inhibitors only

C. Beta blockers only

D. Calcium channel blockers and ACE inhibitors

After a recent myocardial infarction, starting evidence-based medications that protect the heart and improve survival is key. Initiating a beta-blocker together with an ACE inhibitor is the best initial approach for most patients who have no contraindications. A beta-blocker helps by lowering heart rate and myocardial oxygen demand, reducing the risk of arrhythmias, limiting infarct expansion, and improving survival. An ACE inhibitor helps prevent adverse remodeling of the ventricle, lowers afterload, preserves or improves left ventricular function, and also reduces mortality, especially in patients with reduced ejection fraction or signs of heart failure. Using both addresses different processes involved after an MI: controlling acute stress on the heart and preventing long-term deterioration of heart function. If a patient cannot tolerate one of them due to hypotension, bradycardia, or kidney issues, alternatives or adjustments are considered, but the combination is the preferred starting therapy when possible. Calcium channel blockers, by contrast, have not shown the same mortality benefit when started after an MI and are not used as the primary initial therapy; they're generally considered only if beta-blockers are contraindicated or as add-ons for specific symptoms, not as the main post-MI regimen. So, the recommended initial therapy combines a beta-blocker with an ACE inhibitor because together they enhance survival by both reducing acute stress on the heart and preventing remodeling.

8. Ventricular fibrillation is characterized by what?

A. No organized electrical activity in the ventricles

B. Coordinated electrical activity with rapid rate

C. Regular sinus rhythm

D. Atrioventricular dissociation

Ventricular fibrillation is defined by chaotic, uncoordinated electrical activation of the ventricles, so there is no synchronized contraction. The ventricles quiver instead of pumping, leading to no effective cardiac output. On ECG you'd see a jagged, irregular baseline with no identifiable P waves or QRS complexes. This is an emergency that requires immediate CPR and unsynchronized defibrillation to restore a perfusing rhythm. The other descriptions do not fit VF: a rapid but organized rhythm points to ventricular tachycardia, a normal regular rhythm is sinus rhythm, and atrioventricular dissociation describes independent atrial and ventricular activity, not the disorganized ventricular activity seen in VF.

9. In heart failure management, an additional diuretic is typically given when a patient has gained more than how many kilograms over their dry weight for more than 24 hours?

A. >2 kg over dry weight for more than 24 hours

B. >5 kg over dry weight for more than 24 hours

C. >1 kg over dry weight for more than 12 hours

D. >3 kg over dry weight for more than 24 hours

In heart failure management, weight tracking is a practical way to gauge fluid status because excess fluid adds to body weight. Dry weight represents the weight without excess fluid, so a gain above that indicates fluid retention. When a patient has gained more than 2 kilograms over their dry weight for more than 24 hours, it signals meaningful congestion and warrants adding an extra diuretic dose to help remove the excess fluid and relieve symptoms. This threshold balances treating volume overload with avoiding overdiuresis, and it's more specific than waiting for larger, more acute weight spikes or shorter timeframes. Thus, the guideline-driven trigger is a gain of more than 2 kilograms over dry weight for more than 24 hours.

10. Which presentation most suggests a pulmonary embolism?

A. Chest pain and fever

B. Shortness of breath, chest pain, tachycardia, tachypnea, dizziness

C. Dizziness alone

D. Nausea

Pulmonary embolism tends to present with acute shortness of breath and chest pain, often pleuritic, along with signs of rapid heart rate and rapid breathing. The presence of dizziness can occur from reduced cerebral perfusion or anxiety. This combination—dyspnea plus chest pain with tachycardia and tachypnea—fits the typical PE presentation, making it the best choice. Fever with chest pain suggests infection or pleuritis rather than PE, dizziness alone is nonspecific, and nausea alone isn't a strong indicator of PE.

Next Steps

Congratulations on reaching the final section of this guide. You've taken a meaningful step toward passing your certification exam and advancing your career.

As you continue preparing, remember that consistent practice, review, and self-reflection are key to success. Make time to revisit difficult topics, simulate exam conditions, and track your progress along the way.

If you need help, have suggestions, or want to share feedback, we'd love to hear from you. Reach out to our team at hello@examzify.com.

Or visit your dedicated course page for more study tools and resources:

https://pebccardiology.examzify.com

We wish you the very best on your exam journey. You've got this!