ACLS Cardiac Arrest Practice Test (Sample)

Study Guide

BY EXAMZIFY

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. Which of the following is a reversible H (human physiological cause) of cardiac arrest?

A. Hypovolemia

B. Tamponade

C. Hypoxia

D. Hypothermia

2. What action best reflects the resuscitation team's priority for maintaining quality CPR?

A. Applies AED

B. Initiates defibrillation first

C. Transports patient to ED

D. Ensures the delivery of high-quality CPR

3. Which patient history raises suspicion for hypokalemia?

A. Hyperkalemia due to kidney failure

B. Dehydration or diuretic use

C. High salt intake

D. Hypermagnesemia

4. Extracorporeal CPR (ECPR) may be considered under which scenario?

A. No ROSC after standard resuscitation and the uterus has not yet reached the umbilicus in a capable facility

B. Only after ROSC

C. In all cardiac arrests

D. Never

5. Asystole is often the terminal rhythm in which scenario?

A. In patients with pulseless ventricular tachycardia responding to defibrillation

B. In patients with brisk cardiac output after CPR

C. In patients with ventricular fibrillation already converted to sinus rhythm

D. In untreated pulseless ventricular tachycardia or ventricular fibrillation

6. According to the stated guidance, seizures on EEG or status epilepticus should:
   A. be used as the primary predictor of outcome.
   B. never be used to predict poor outcome.
   C. may be associated with poor outcome but should not be used alone to predict it.
   D. indicate a good prognosis when treated.

7. Ventricular fibrillation is characterized by which description?
   A. The ventricles quiver with no effective contraction
   B. Regular, rapid ventricular contractions
   C. Slow, organized atrial activity
   D. Erratic, rapid and completely ineffective depolarization of the ventricles

8. Neuroprognostication after ROSC should be multimodal and delayed until how long after ROSC?
   A. 12 hours after ROSC
   B. 72 hours after ROSC
   C. 24 hours after ROSC
   D. 96 hours after ROSC

9. Which statement about EEG background reactivity is true?
   A. Background reactivity alone should not be used to predict poor outcome.
   B. EEG background reactivity alone predicts poor outcome.
   C. Background reactivity is irrelevant to prognosis.
   D. Normal background reactivity guarantees recovery.

10. Which statement about pulseless electrical activity is true?
   A. It has no electrical activity on the ECG
   B. It has organized ECG rhythms with a palpable pulse
   C. It is when the heart's conduction system is functioning but the myocardium is not contracting enough to produce cardiac output
   D. It is synonymous with ventricular fibrillation

Answers

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

Explanations

1. **Which of the following is a reversible H (human physiological cause) of cardiac arrest?**

   A. Hypovolemia

   B. Tamponade

   C. Hypoxia

   D. Hypothermia

During cardiac arrest, recognizing reversible human physiological problems (the Hs) helps you intervene to restore circulation. Hypovolemia means there isn't enough circulating blood volume, often from severe bleeding or major fluid loss. With very low preload, the heart can't generate adequate output. The fix is rapid restoration of intravascular volume—administering isotonic fluids or blood products and controlling the source of loss. Replacing volume directly tackles the root problem and can quickly improve coronary and cerebral perfusion, which is why this cause is the classic reversible H. Other items in this set involve different mechanisms: tamponade is a mechanical issue around the heart that's relieved by draining the pericardial sac; hypoxia improves with adequate oxygen delivery; hypothermia requires warming. These are reversible too, but they stem from different processes, whereas restoring volume addresses the immediate preload deficit that leads to arrest in many patients.

2. **What action best reflects the resuscitation team's priority for maintaining quality CPR?**

   A. Applies AED

   B. Initiates defibrillation first

   C. Transports patient to ED

   D. Ensures the delivery of high-quality CPR

Maintaining high-quality chest compressions is the central focus during resuscitation because consistent, well- performed compressions sustain the blood flow needed to protect the brain and heart while the team addresses the rhythm and possible shock. High-quality CPR means compressions at the right rate (about 100–120 per minute), the proper depth (about 5 cm or 2 inches for adults), full chest recoil between compressions, and the fewest interruptions possible. Fatigue is common, so rotating compressors every two minutes helps keep depth and rate up. After a shock is prepared or delivered, compressions should be resumed immediately and continuously, with minimal delays, to maintain perfusion. While using an AED and delivering defibrillation are essential steps, they are most effective when performed in the context of continuous, quality CPR. Transporting the patient or delaying CPR for other actions would interrupt perfusion and reduce survival chances. So the action that best reflects the priority is ensuring the delivery of high-quality CPR throughout the resuscitation.

3. Which patient history raises suspicion for hypokalemia?

A. Hyperkalemia due to kidney failure

B. Dehydration or diuretic use

C. High salt intake

D. Hypermagnesemia

Recognizing factors that lead to potassium loss helps you spot hypokalemia from a patient's history. Potassium balance is shaped by intake, renal excretion, and shifts between compartments. Diuretics cause more potassium loss in the distal nephron, and dehydration or volume depletion activates the renin-angiotensin-aldosterone system, increasing aldosterone which promotes potassium secretion in the collecting ducts. This combination makes a history of dehydration or diuretic use the strongest clue for hypokalemia. By contrast, kidney failure tends to cause high potassium (hyperkalemia); a high-salt diet doesn't specifically drive potassium loss; and hypermagnesemia isn't a primary driver of hypokalemia.

4. Extracorporeal CPR (ECPR) may be considered under which scenario?

A. No ROSC after standard resuscitation and the uterus has not yet reached the umbilicus in a capable facility

B. Only after ROSC

C. In all cardiac arrests

D. Never

Extracorporeal CPR is a bridge therapy that provides circulatory and oxygenation support during ongoing chest compressions when conventional CPR has not restored spontaneous circulation, and it's available in a center with ECMO capabilities. The scenario where ECPR is considered focuses on refractory cardiac arrest: you continue resuscitation with the goal of stabilizing the patient while ECMO is deployed, especially if a reversible cause is suspected and there's a reasonable chance of a good outcome within a feasible time frame. This concept helps explain why ECPR is not something you apply to every cardiac arrest or only after ROSC. It's not used in all arrests due to resource limits, patient factors, and the need for rapid ECMO access. It's also not something you do after ROSC, since the value of ECPR lies in supporting circulation during arrest to buy time for definitive treatment. The other options describe scenarios that don't align with the practical use of ECPR, such as focusing on after-ROSC care, applying it never, or adding unrelated conditions. The takeaway is that ECPR is considered in select, refractory cardiac arrests at capable centers where rapid ECMO deployment is feasible.

5. Asystole is often the terminal rhythm in which scenario?

A. In patients with pulseless ventricular tachycardia responding to defibrillation

B. In patients with brisk cardiac output after CPR

C. In patients with ventricular fibrillation already converted to sinus rhythm

D. In untreated pulseless ventricular tachycardia or ventricular fibrillation

Asystole represents the end stage of many cardiac arrests and is most likely to occur when a shockable rhythm like pulseless ventricular fibrillation or pulseless ventricular tachycardia is left untreated. When VF or VT is not treated with timely defibrillation and Advanced Cardiac Life Support interventions, the electrical activity eventually ceases, resulting in asystole. This rhythm is non-shockable, so the focus shifts to high-quality CPR and medications (like epinephrine) while addressing reversible causes, hoping for any chance of return of spontaneous circulation. That’s why the scenario with untreated pulseless VT or VF is the best fit for asystole. If a patient has been defibrillated and responds, or if VF has converted to a rhythm with a pulse or restored perfusion after CPR, asystole wouldn’t be the expected terminal rhythm. Similarly, with a patient who has brisk cardiac output after CPR or VF converted to sinus rhythm, you wouldn’t classify the situation as asystole.

6. According to the stated guidance, seizures on EEG or status epilepticus should:

A. be used as the primary predictor of outcome.

B. never be used to predict poor outcome.

C. may be associated with poor outcome but should not be used alone to predict it.

D. indicate a good prognosis when treated.

Seizures seen on EEG or a state of ongoing nonconvulsive status epilepticus after brain injury signal significant brain distress and are often linked with worse outcomes, because they reflect ongoing neuronal dysfunction and metabolic stress. But prognosis after such events cannot be based on EEG findings alone. The most trustworthy predictions come from a multimodal view that includes clinical examination (when feasible), imaging, laboratory biomarkers, and the patient’s overall trajectory over time. Treating electrographic seizures can sometimes improve outcomes, and some patients recover despite early EEG abnormalities, especially when the underlying issue is reversible and seizures are controlled. Therefore, EEG seizures or status epilepticus may be associated with poor outcome, yet they should not be used in isolation to predict prognosis.

7. **Ventricular fibrillation is characterized by which description?**

   A. The ventricles quiver with no effective contraction

   B. Regular, rapid ventricular contractions

   C. Slow, organized atrial activity

   D. Erratic, rapid and completely ineffective depolarization of the ventricles

Ventricular fibrillation is a chaotic, disorganized electrical activity in the ventricles that prevents coordinated depolarization and pumping. The best description captures this: erratic, rapid and completely ineffective depolarization of the ventricles. Because the electrical signals are chaotic, the ventricles quiver rather than contract in a synchronized way, so there is no effective cardiac output. The other descriptions don't fit as well: a ventricle quivering with no effective contraction does describe the outcome of VF, but it doesn't emphasize the underlying chaotic electrical activity; a regular, rapid ventricular rhythm describes ventricular tachycardia, not VF; slow, organized atrial activity describes a different rhythm altogether. In practice, VF requires immediate defibrillation and CPR because the heart isn't delivering blood flow.

8. **Neuroprognostication after ROSC should be multimodal and delayed until how long after ROSC?**

   A. 12 hours after ROSC

   B. 72 hours after ROSC

   C. 24 hours after ROSC

   D. 96 hours after ROSC

Neuroprognostication after ROSC is most reliable when it uses multiple modalities and is postponed long enough for the brain to reveal its true trajectory. About 72 hours after ROSC is a commonly recommended window because by then the influences of sedation, metabolic derangements, and therapeutic hypothermia begin to lessen, and brain injury evolution has settled enough to allow more accurate interpretation of findings. Why this timing makes sense: right after return of spontaneous circulation, the brain is recovering from a period of hypoxia, and many factors can obscure true prognosis. Sedatives and paralytics used during resuscitation and critical care can suppress neurologic responses, and temperature management can alter neurophysiologic signals. Waiting around 72 hours after ROSC helps ensure that clinical examination is not confounded by these transient effects and allows time for the patterns seen on EEG, somatosensory evoked potentials, imaging, and biomarkers to stabilize. Using a multimodal approach—combining clinical examination with neurophysiology, imaging, and biomarkers—reduces the risk of incorrect prognostication that might occur if relying on a single test too early. If you're considering the other time points, they are less aligned with best practice because they either occur too soon to overcome the confounding effects of sedation and temperature management, or they extend well beyond when reliable predictors can already be integrated. The emphasis is on delaying for an adequate interval and using multiple independent indicators to form a judgment about likely outcomes.

9. Which statement about EEG background reactivity is true?

- <u>**A. Background reactivity alone should not be used to predict poor outcome.**</u>
- **B. EEG background reactivity alone predicts poor outcome.**
- **C. Background reactivity is irrelevant to prognosis.**
- **D. Normal background reactivity guarantees recovery.**

EEG background reactivity reflects the brain's ability to respond to external stimulation, but it should not be used in isolation to predict outcome. In post-arrest care, prognostication is multimodal, and while reactive background activity can indicate preserved cortical function and a better prognosis, many factors can confound it. Sedatives, neuromuscular blockers, and temperature management can suppress EEG reactivity, and metabolic or reflects of overall brain injury can alter readings. Because of these influences, relying on reactivity alone would be unreliable. That's why the best statement is that background reactivity alone should not be used to predict poor outcome. You combine EEG findings with other prognostic tools—such as somatosensory evoked potentials, neuroimaging, detailed neurological examination, and relevant biomarkers—at an appropriate time after resuscitation to form a reliable prognosis. The other options don't fit: reactivity is not irrelevant to prognosis, normal reactivity does not guarantee recovery, and reactivity alone does not definitively predict poor outcome.

10. Which statement about pulseless electrical activity is true?

- **A. It has no electrical activity on the ECG**
- **B. It has organized ECG rhythms with a palpable pulse**
- <u>**C. It is when the heart's conduction system is functioning but the myocardium is not contracting enough to produce cardiac output**</u>
- **D. It is synonymous with ventricular fibrillation**

Pulseless electrical activity is when the heart's electrical system is generating activity seen on the ECG, but the heart muscle isn't contracting enough to produce a detectable pulse or adequate cardiac output. That means the conduction pathways are working, but the myocardium isn't delivering effective mechanical output. This is why the best statement is that the conduction system is functioning while the myocardium fails to generate sufficient output. In contrast, there would be no electrical activity on the ECG in asystole, an organized rhythm with a palpable pulse would indicate a perfusing rhythm, and ventricular fibrillation involves chaotic, irregular electrical activity with no effective contraction. In PEA, you treat as cardiac arrest with CPR and address reversible causes.

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://aclscardiacarrest.examzify.com

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