Hemisphere IV Rapid Stroke Response 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. **What is the weight-based dosing for Tenecteplase in acute ischemic stroke?**

   A. 0.25 mg/kg with a maximum of 25 mg

   B. 0.4 mg/kg

   C. 0.75 mg/kg

   D. 1 mg/kg

2. **In the context of 6-hour thrombectomy eligibility, which imaging finding supports selection when considering DW-MRI?**

   A. Age >=18

   B. Occlusion of ICA or M1 MCA

   C. Mismatch between clinical deficit severity and infarct volume on DW-MRI

   D. Infarct involving more than 2/3 MCA

3. **What is the typical secondary prevention regimen for noncardioembolic ischemic stroke?**

   A. Antiplatelet therapy (aspirin or aspirin plus clopidogrel short-term) and high-intensity statin; risk factor modification.

   B. Anticoagulation with warfarin.

   C. Thrombolysis repeated every day.

   D. No pharmacologic prevention.

4. **Before giving thrombolytics, which blood pressure threshold must be met?**

   A. less than 140/90

   B. less than 150/95

   C. less than 160/95

   D. less than 185/110

5. **Which statement best describes the relationship between ASPECTS score and thrombectomy eligibility?**

   A. Higher ASPECTS (>=6) suggests potential benefit from thrombectomy

   B. Lower ASPECTS (<6) suggests benefit from thrombectomy

   C. ASPECTS does not influence thrombectomy decisions

   D. ASPECTS is used only for tPA decisions

6. What is the recommended timing for starting anticoagulation after cardioembolic stroke when imaging shows no hemorrhage?

A. Immediately before imaging

B. Never start anticoagulation

C. After hemorrhage is excluded on imaging and risk is acceptable, often around 24 hours or later

D. Only after 1 week regardless imaging

7. Diffusion-weighted MRI is particularly useful for detecting which feature in acute stroke?

A. Early ischemia

B. Mass effect

C. Hemorrhage

D. Normal function

8. Which blood product is used to replace clotting factors during hemorrhage after thrombolysis?

A. Fresh frozen plasma

B. Cryoprecipitate

C. Platelets

D. Packed red blood cells

9. Which designation is the Primary Stroke Center?

A. Comprehensive Stroke Center (CSC)

B. Thrombectomy-capable stroke center (TSC)

C. Primary Stroke Center (PSC)

D. Acute Stroke Ready Hospital (ASRH)

10. What is the ideal door-to-needle time for IV tPA administration in many EDs?

A. 60 minutes

B. 90 minutes

C. Under 45 minutes

D. 120 minutes

Answers

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

Explanations

1. What is the weight-based dosing for Tenecteplase in acute ischemic stroke?

A. 0.25 mg/kg with a maximum of 25 mg

B. 0.4 mg/kg

C. 0.75 mg/kg

D. 1 mg/kg

In acute ischemic stroke, tenecteplase is given as a single IV bolus dosed by body weight at 0.25 mg/kg, with a maximum total dose of 25 mg. This approach provides enough thrombolytic effect to help dissolve the clot while keeping the risk of intracranial hemorrhage in check, and the 25 mg cap prevents overdose in heavier patients. Higher weight-based doses, such as 0.4 mg/kg, 0.75 mg/kg, or 1 mg/kg, have not shown added benefit in stroke and carry greater bleeding risk, so they are not used for this indication.

2. In the context of 6-hour thrombectomy eligibility, which imaging finding supports selection when considering DW-MRI?

A. Age >=18

B. Occlusion of ICA or M1 MCA

C. Mismatch between clinical deficit severity and infarct volume on DW-MRI

D. Infarct involving more than 2/3 MCA

In this context, the purpose of DW-MRI is to gauge how much brain tissue has already suffered irreversible damage (the infarct core) versus how much may still be saved. When the clinical deficit is disproportionately large compared to the small DW-MRI infarct lesion, a mismatch exists. That means there is a substantial amount of tissue at risk but not yet irreversibly damaged, which can potentially be saved with rapid reperfusion. This mismatch supports selecting a patient for thrombectomy within six hours because it identifies salvageable tissue that stands to benefit from treatment. If the infarct on DW-MRI is already large (involving most of a territory like more than two-thirds of the MCA), there is little salvageable tissue, making thrombectomy less beneficial. While a vessel occlusion is important for eligibility, the specific DW-MRI mismatch finding is the imaging feature that justifies intervention in this window. Age alone does not provide imaging-based guidance.

3. What is the typical secondary prevention regimen for noncardioembolic ischemic stroke?

A. Antiplatelet therapy (aspirin or aspirin plus clopidogrel short-term) and high-intensity statin; risk factor modification.

B. Anticoagulation with warfarin.

C. Thrombolysis repeated every day.

D. No pharmacologic prevention.

The main idea is to prevent a recurrent stroke by targeting the mechanism most often involved in noncardioembolic events—platelet-driven thrombosis—and by reducing overall vascular risk. Antiplatelet therapy is central: aspirin alone is commonly used, and in some patients a short period of dual antiplatelet therapy with aspirin plus clopidogrel can lower early recurrence after a minor stroke or high-risk TIA, but the combination is not kept long-term due to bleeding risk. Pair this with a high-intensity statin to aggressively lower LDL and stabilize atherosclerotic disease, which lowers the chance of another event. Equally important is comprehensive risk-factor modification—controlling blood pressure, managing diabetes, quitting smoking, maintaining a healthy weight, and staying physically active. Anticoagulation with warfarin isn't favored for noncardioembolic stroke because it hasn't shown a net benefit over antiplatelets and carries more bleeding risk, and repeated thrombolysis isn't a preventive strategy. Doing nothing pharmacologically would miss these proven protective measures.

4. Before giving thrombolytics, which blood pressure threshold must be met?

A. less than 140/90

B. less than 150/95

C. less than 160/95

D. less than 185/110

Before giving thrombolytics, the blood pressure must be below 185/110 mmHg. This threshold is set because thrombolytics greatly increase the risk of intracerebral hemorrhage, and keeping BP under this limit helps minimize that risk. If the pressure is higher, clinicians use IV antihypertensives such as labetalol, nicardipine, or clevidipine to bring it down to or below 185/110 before administering the medication. Once thrombolysis is started, the goal is to maintain BP below about 180/105 for the next 24 hours to further reduce the risk of bleeding. Lower thresholds would unnecessarily delay treatment, while higher thresholds would raise the risk of hemorrhagic complications.

5. Which statement best describes the relationship between ASPECTS score and thrombectomy eligibility?

A. Higher ASPECTS (>=6) suggests potential benefit from thrombectomy

B. Lower ASPECTS (<6) suggests benefit from thrombectomy

C. ASPECTS does not influence thrombectomy decisions

D. ASPECTS is used only for tPA decisions

ASPECTS is a CT-based scoring system that estimates how much brain tissue in the MCA territory has already been affected by ischemia. A higher score means fewer early ischemic changes and more potentially salvageable tissue. In the setting of a large vessel occlusion, a score of 6 or higher suggests there is enough viable brain to benefit from removing the clot, so thrombectomy is likely to be beneficial. A lower score indicates more extensive early changes, meaning less tissue can be saved and the risk of poor outcome or harm increases, making thrombectomy less favorable. ASPECTS is used to guide thrombectomy decisions and is not limited to tPA considerations.

6. What is the recommended timing for starting anticoagulation after cardioembolic stroke when imaging shows no hemorrhage?

A. Immediately before imaging

B. Never start anticoagulation

C. After hemorrhage is excluded on imaging and risk is acceptable, often around 24 hours or later

D. Only after 1 week regardless imaging

Balancing the risk of early recurrent embolism against the danger of hemorrhagic transformation guides when to start anticoagulation after a cardioembolic stroke. If imaging confirms there is no hemorrhage and the patient is clinically stable, anticoagulation is typically started around 24 hours after onset, sometimes later if the infarct is large or there are other bleeding risks. The essential step is to exclude hemorrhage first, because anticoagulation can worsen an existing bleed. Starting immediately or waiting a full week regardless of imaging doesn't fit this risk–benefit balance. So the best timing is after imaging shows no hemorrhage and the risk is acceptable, often around 24 hours or later.

7. Diffusion-weighted MRI is particularly useful for detecting which feature in acute stroke?

A. Early ischemia

B. Mass effect

C. Hemorrhage

D. Normal function

Diffusion-weighted MRI detects areas where water movement is restricted, which happens very early in acute ischemia. When neurons lose energy, they fail to regulate their ion balance, causing cytotoxic edema and rapid cell swelling. This restriction of water diffusion makes affected tissue appear bright on diffusion-weighted images and dark on the corresponding ADC map. Because diffusion restriction occurs within minutes of onset, DWI is superb for spotting early ischemic injury, often before other imaging sequences show changes. Hemorrhage is best seen by susceptibility-based sequences because blood products create magnetic susceptibility effects, not diffusion changes. Mass effect or edema from nonvascular causes may be visible elsewhere but isn't the specific signal DWI is designed to highlight. Normal brain tissue doesn't display diffusion restriction, so DWI helps distinguish acute ischemia from normal function.

8. Which blood product is used to replace clotting factors during hemorrhage after thrombolysis?

A. Fresh frozen plasma

B. Cryoprecipitate

C. Platelets

D. Packed red blood cells

Hemorrhage after thrombolysis creates a coagulopathy where fibrinogen is rapidly depleted and the clot cannot form properly. The best way to rapidly restore the clotting potential is to replace fibrinogen and related factors, which cryoprecipitate provides in concentrated form. Cryoprecipitate contains fibrinogen (the key factor needed to form the fibrin clot) along with factors VIII and XIII and von Willebrand factor, making it especially effective for quickly lifting fibrinogen levels and stabilizing clots after thrombolytic therapy. Fresh frozen plasma does supply clotting factors but in a more diluted form and is used when a broad range of factors needs replacement; it's not as rapid at correcting low fibrinogen. Platelets help with platelet-driven hemostasis, but don't replenish fibrinogen. Packed red blood cells address oxygen delivery and volume, not coagulation.

9. Which designation is the Primary Stroke Center?

A. Comprehensive Stroke Center (CSC)

B. Thrombectomy-capable stroke center (TSC)

C. Primary Stroke Center (PSC)

D. Acute Stroke Ready Hospital (ASRH)

A Primary Stroke Center is the facility equipped to deliver the essential, evidence-based care for acute stroke right away. It means the hospital can rapidly evaluate a suspected stroke, perform immediate brain imaging, and initiate treatment promptly, all within standardized protocols and with a 24/7 stroke team available. This level focuses on delivering the core initial stroke care and stabilizing the patient, with clear pathways for transfer if more advanced interventions or specialty support are needed. The other designations describe centers with broader or different capabilities—comprehensive centers offer extensive neurosurgical and endovascular services, thrombectomy-capable centers focus on clot removal, and acute stroke ready hospitals provide basic readiness but not the full PSC spectrum. So, the designation that identifies the facility set up for this essential initial stroke care is Primary Stroke Center.

10. What is the ideal door-to-needle time for IV tPA administration in many EDs?

A. 60 minutes

B. 90 minutes

C. Under 45 minutes

D. 120 minutes

Prompt treatment with IV tPA in acute ischemic stroke is highly time-dependent—the quicker you start therapy after arrival, the more brain tissue you can save and the better the potential outcome. In many emergency departments, the ideal target is to begin IV tPA within 45 minutes of arrival. This aggressive goal drives streamlined processes: rapid triage and pre-notification, immediate CT to rule out hemorrhage, fast eligibility checks, and immediate drug administration once there are no contraindications. While 60 minutes is a common achievable benchmark, aiming for under 45 minutes represents the best-performing standard in many settings. Longer times, like 90 or 120 minutes, are associated with worse outcomes due to prolonged ischemia.

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://hemisphereivrapidstrokeresp.examzify.com

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