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What’s In the Sample Edition?

This sample edition is designed to provide an example of the study guide’s three part system.

You’ll find the full chapter, “How to Use This Guide.” You’ll also find a sample self-assessment with three knowledge blocks. These are three actual knowledge blocks from the full study guide. We’ve selected a single knowledge block from the operations chapter, a second block from the airway and breathing chapter and a third knowledge block from the cardiology chapter.

These three subjects tend to be particularly challenging to students taking the National Registry exam.

This sample study guide will allow you to see our three step process in action.

1. You can complete a self-assessment. (Assess your knowledge.)
2. You can take a practice test. (Test your knowledge.)
3. You can analyze your results and determine your strength in these subjects. (Attack your knowledge deficits.)

If you just want to experience a few questions written and formatted based on the National Registry standard, you can also just skip ahead to page 16.
The Recipe for Success (How to Use This Guide)

Each of the six parts of The EMT Advantage, National Registry Study Guide is designed to be approached using a three step strategy.

1. Assess your knowledge
2. Test your knowledge
3. Attack your knowledge deficits

Let’s look at each one of these steps in a little more detail and break down exactly how I intend for you to use this study guide.

There is no need to complete the chapters in order. Each chapter represents approximately one sixth of the questions you will see on the test. The National Registry divides your computer test up using these same six major categories.

Also keep in mind that these questions are designed to be challenging. Unlike most of the tests you have taken in your life, The Registry test is not scored based on how many questions you answered correctly. In fact, most folks who take the test miss between forty-six and forty-eight percent of the questions.

What does matter is the difficulty level of the questions you do answer correctly. Answer difficult questions correctly and your future questions will get even more difficult. Answer questions incorrectly and your next questions get easier. You can’t pass the National Registry test by knowing the answers to easy questions. So we’re not going to ask you any in this study guide.

Knowing that, there’s no need to panic if you miss a larger percentage of these questions that you’re accustomed to missing on a standard EMT test. You’re going to miss more of the National Registry questions than you’re accustomed to as well. That’s OK. What you’re looking for are trends. How well did you perform compared to other subjects? This comparison will help you target your knowledge deficits for future studying.

Now let’s walk through a chapter and apply our three step strategy.

**Step 1: Assess your knowledge**

Each chapter will begin with a table of contents for that chapter. Listed first are the ten designated knowledge blocks for that chapter. These knowledge blocks were selected by our advisory group to best represent the areas of knowledge most likely to be addressed in your National Registry test questions.
These knowledge blocks are, by no means, a comprehensive grouping of all of the knowledge within that major category, but they should be a fair representation of what might appear on your test, based on our research.

Each chapter’s self-assessment and test questions will all be based on these ten knowledge blocks. Take a moment and read through the list of knowledge blocks in the chapters table of contents. You’ll be seeing these ten knowledge blocks again in the pages ahead.

Turn the page and begin reading the chapter. Each chapter starts with an overview of the subject titled “Knowledge Self-Assessment.” It describes what areas of the subject are worth spending extra time studying and what areas are prime topics for questions. The overview will also explain what major pieces of knowledge have been selected as knowledge blocks for the chapter and a bit more detail about why they were selected.

As you read about the chapter topic, you will encounter knowledge blocks. The knowledge block will describe a knowledge goal and tell you about the knowledge requirements within that block. Each knowledge block will end with a question. Here is a sample knowledge block from chapter two, Cardiology:

Knowledge Block 2-3: 
Understand the electrical conduction system of the heart.

While a complex understanding of cardiac electrophysiology isn’t expected, the EMT should understand the basic components of the electrical system including how electrical impulses are initiated and how they move from the SA node through the system to the ventricular fascicles and the purkinje fibers. Also know normal heart rate ranges and the four most common cardiac arrest rhythms.

Do you understand how electricity moves through the heart?

This sample knowledge block from chapter two is knowledge block 2-3. That means that it is the third knowledge block from chapter two. Note that the knowledge block begins with the statement, “Understand the electrical conduction system of the heart.” This is the knowledge goal of this particular knowledge block.

Now read through the description of the knowledge block. It will give you a bit more detail about what types of information are crucial to your understanding of this particular knowledge block.

The knowledge talked about in the knowledge block may seem familiar to you or it may not. After you’ve familiarized yourself with the block, think about the question being asked at the end.

You’re now going to rate your understanding of that particular knowledge block on a scale of one to five. Five represents a complete knowledge of the subject. One represents complete unfamilarity with the knowledge presented.
This part of the chapter is your assessment of your own knowledge. The score you give yourself will be added to your test score for this knowledge block for a final score that will range from one to ten. The higher your total score in each knowledge block the better you performed. When you create your study plan after the chapter is complete, you’ll focus most of your study time on your lowest scoring knowledge blocks.

Here’s an example of how you might consider scoring yourself for each knowledge block:

**Five.** I am completely familiar with this topic. I understand everything mentioned in the knowledge block and feel confident that I would answer questions on this topic correctly.

**Four.** I am fairly confident that I understand this topic. I know most of the information discussed and would answer a majority of questions on this topic correctly.

**Three.** I remember learning this and I’m familiar with the subject, but my knowledge is hit-and-miss on the topic. Of the topics mentioned here, I understand about half of them. If I was tested on this topic I’d probably get about half of the questions correct.

**Two.** I am unfamiliar with this topic and have little confidence in my knowledge of this area. I’ve never learned or completely forgotten some of the topics mentioned.

**One.** I am completely unfamiliar with the knowledge in this knowledge block. I have either never been taught this information or I simply don’t recall anything I learned about this subject. I would not be able to answer any questions on this topic.

Now it’s time to score yourself on your knowledge of the topic. In the bottom right corner of each knowledge block write down your self-assessment score. Perhaps basic ECG is not something that was reviewed in any detail in your EMT class but you do recall electrical conduction from your cardiology section. You are familiar with the nodes of the heart and the electrical conduction pathways but the term “purkinje fibers” caught you by surprise. You didn’t recall that term. You know the heart rate ranges for bradycardia and tachycardia but you’re a bit fuzzy on cardiac arrest rhythms.

For this knowledge block perhaps you should be conservative and score yourself a three:
Work your way through the chapter narrative scoring yourself between one and five for each of the knowledge blocks. If you’re working through these chapters on a computer, you’ll need to get a notepad and begin making notes. You’ll need this notepad when you begin answering questions in the next section.

Complete these steps in order. I understand that you might be in a rush to begin answering the questions in the test section, but once you’ve read the questions in step two, you’ll skew your numbers in step one.

Before you finish the narrative section of the chapter you’ll encounter a page that lists the top ten test question trip-ups for this particular subject. This list was compiled by EMS educators based on years of experience testing and grading students on this knowledge.

Read through the list and take a few moments to think about how you might avoid committing these errors when you take your test. For each particular test question trip-up, think about how a question writer might trip you up using that particular weakness. You might think of this list as the “How we are going to fool you.” list. Here, the authors of the questions are telling you how they are going to get you to pick the wrong answer. Know the list and don’t be fooled.

**Step Two: Test Your Knowledge**

Now it’s time to test your EMT knowledge. For each chapter you’ll take a fifty question test. These questions were developed by a team of EMT educators based on the format and criteria followed by the National Registry. They are designed to test your medical cognitive ability on multiple levels.

Expect these questions to be difficult. They are designed to be at or above the passing level on the National Registry test. At this level of difficulty, it isn’t uncommon to miss almost half of the questions presented.

Try to find a quiet place and a time when you can complete all fifty questions without interruption. Answer the questions in order, the same way you’ll be required to on the computer based Registry test. If the correct answer isn’t apparent to you, take your best guess and move on. This will be a requirement if you are taking a computer based test and when you are done, you’ll want to know if you would have gotten the question right or wrong.

A question from our sample cardiology knowledge block might look something like this:

**Ventricular fibrillation is best described as:**

a) The absence of electrical activity  
b) Disorganized electrical activity  
c) An abnormally fast heart rate  
d) An abnormally slow heart rate
You’ll be answering five questions from each knowledge block. The questions are randomized. While you might have an idea which questions are associated with which knowledge blocks, you won’t know until you’ve finished the questions and moved on to the analysis portion of the chapter.

Circle the best answer on your test page or note the answer on your notepad until you have moved through all fifty questions.

Ventricular fibrillation is best described as:

a) The absence of electrical activity  

b) Disorganized electrical activity  

c) An abnormally fast heart rate  

d) An abnormally slow heart rate  

For our sample question, we are going to pick answer letter b – Disorganized electrical activity. Are we correct? We won’t know until we read the question analysis.

**Step Three: Attack Your Knowledge Deficits**

Once you’ve answered all fifty questions, you are ready to move on to the question analysis. Take your answers and move through the question analysis one question at a time. Each question you’ve answered will be analyzed for your review. The review box looks like this:

<table>
<thead>
<tr>
<th>Question 0) The Question will appear here in bold.</th>
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</thead>
<tbody>
<tr>
<td>a) Incorrect rationales will be explained next to their associated letter</td>
<td></td>
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<tr>
<td>b) Correct. The correct answer will appear in bold and have a brief explanation of why it is the correct choice.</td>
<td></td>
</tr>
<tr>
<td>c) Incorrect rationales will be explained next to their associated letter</td>
<td></td>
</tr>
<tr>
<td>d) Incorrect rationales will be explained next to their associated letter</td>
<td></td>
</tr>
</tbody>
</table>

Correct? : Yes [ ] No [ ] (Mark one to keep track of your test score)

Knowledge Block 0-0: The name, number and title of the questions knowledge block appear here.

The National Registry question category, sub-category and question type appear here.

Approximate NREMT Difficulty:
The review box for our sample cardiac rhythm question might look like this:

**Question 13) Ventricular fibrillation is best described as:**

<p>| | |</p>
<table>
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<tbody>
<tr>
<td>a)</td>
<td>Incorrect. The absence of electrical activity is better known as asystole. It is also referred to as cardiac standstill.</td>
</tr>
<tr>
<td>b)</td>
<td>Correct. Random, disorganized electrical activity is the hallmark of ventricular fibrillation. There is no actual cardiac output or pulse during ventricular fibrillation.</td>
</tr>
<tr>
<td>c)</td>
<td>Incorrect. An abnormally fast heart rate (a rate above 100 beats per minute) is called tachycardia.</td>
</tr>
<tr>
<td>d)</td>
<td>Incorrect. An abnormally slow heart rate (a rate below 60 beats per minute) is known as bradycardia.</td>
</tr>
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</table>

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<tbody>
<tr>
<td>a)</td>
<td>The absence of electrical activity</td>
</tr>
<tr>
<td>b)</td>
<td>Disorganized electrical activity</td>
</tr>
<tr>
<td>c)</td>
<td>Abnormally fast heart rate</td>
</tr>
<tr>
<td>d)</td>
<td>Abnormally slow heart rate</td>
</tr>
</tbody>
</table>

Correct? : Yes [ ] No [ ] (If yes, add one point to knowledge block listed below)

Knowledge Block: 2-3 Conductivity of the heart

National Registry Category: Cardiology – Cardiac Arrest Rhythms – (PATH)

Difficulty: 1.8

You’re going to be looking at a lot of these question analysis boxes in the pages ahead so we are going to take a more detailed look at this one and break down how you can use each box to help you better understand the question.

**Question #24: Ventricular fibrillation is best described as:**

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<th></th>
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</thead>
<tbody>
<tr>
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<td>d)</td>
<td>Incorrect. An abnormally slow heart rate (a rate below 60 beats per minute) is known as bradycardia.</td>
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</table>

Correct? : Yes [ ] No [ ] (If yes, add one point to knowledge block listed below)

Knowledge Block: 2-3 Conductivity of the heart

National Registry Category: Cardiology – Cardiac Arrest Rhythms – (PATH)

Difficulty: 1.8

1. The Question. A reminder of the question number and the question asked will appear in the top box. This should help you minimize the time you spend flipping back and forth through the chapter.
2. The Distractors. The four question distractors will be listed here exactly as they appeared in the original question. You may need to flip back in the chapter or look at your notes to reference which distractor you chose as the correct answer.
3. The correct answer will be revealed here with accompanying analysis. If you were correct, read the correct answer analysis to confirm your understanding of the question was correct and confirm your knowledge. If you were incorrect, read why your particular answer was incorrect and also read why the correct answer was correct. Make notes for future study if you’d like.

4. Check the circle for correct or incorrect depending on your success with the question. This will be important when you do your final analysis of your results.

5. Pay attention to which knowledge block the question came from. If your response was correct, your point total for this knowledge block will increase by one in the final results analysis.

6. All National Registry questions are categorized by the National Registry into a category, sub-category and question type. The computer uses these categories to ensure that you receive the correct percentage of questions from each category and that they are dissimilar and varied.

As you encounter a question that you answered correctly, note the designated knowledge block for that question. Flip to the last part of the chapter titled “Study Guide” and write the question number in the section labeled “Correct Questions” for that particular knowledge block. Continue through the entire answers and rationales section noting all of your correct questions from the test in their appropriate study guide blocks.

After you’ve reviewed you test question results and scored yourself for all of your right answers, you’re ready to complete the final analysis. This is where your results from the chapter will come together and help guide your future studying on this subject.

7. Difficulty is everything on the Registry test. All questions are ranked, based on testing data, on a scale from negative five (easiest) to positive five (hardest.) To pass the test you’ll need to be able to answer questions in the 1.4 to 1.8 difficulty range. All of the questions you will see in this study guide are predicted to land within or above that range. Here we list our estimation of the approximate National Registry difficulty level for this question.

The EMT curriculum is a large body of knowledge. There’s no need to relearn everything you’ve already learned. This unique scoring system will help you pinpoint and target where your knowledge base falls short and where you excel. From here you can target just those subjects where you need review.

**Warning: Right Answers Only!**

You are only scoring yourself for the questions that you got right. Wrong answers don’t get scored in the study guide.

Make a note of why you got a question wrong and then put that question where it belongs, in the past.
At the end of each chapter you’ll find a section called the study guide. This is where you will score yourself for each knowledge block in the chapter and decide where to focus your studying before test day. For each knowledge block you’ll find a scoring section.

Our sample cardiology question came from knowledge block 2-3 Conductivity of the Heart. The scoring section for that knowledge block looks like this:

You’ll recall that we gave ourselves a hypothetical self-score of 3 in this category meaning that we felt like we were familiar with the topic but our knowledge was “hit-and-miss.” Also recall that we were given exactly five questions from this knowledge block in the fifty question test. Our test results will give us a possible score between zero (missed all of them) and five (got all of them correct.) For our purposes here, let’s assume we only missed one of the five questions from this knowledge block.

Our conductivity of the heart score sheet should look something like this:

In this example, we had some success with this knowledge block and got four of the five possible questions correct. We made a note for each question we got right and then added them up for a test score of four.
Then we added in our self-assessment score of three for a grand total of seven on this knowledge block. This final score is the combined total of our own confidence and our objective performance on the test. It is a more complete analysis of our competence than if we simply took a test or opened our books and began studying.

What does a score of seven mean? It depends on how we do on the other knowledge blocks in the chapter. Once we’ve scored ourselves for all the knowledge blocks in the chapter, we can rank which knowledge blocks to focus on most and which we can glance over briefly or not study at all.

If most of our knowledge blocks in this chapter were scored in the eight, nine or ten range (better than seven) we may decide to focus more of our study time on the suggested points in knowledge block 2-3. If most of our cardiology blocks were scored in the two, three or four range (worse than seven) we may decide that we can skip studying electrical conductivity and focus on our low scoring cardiology blocks.

In the same manner, we can compare our results from chapter to chapter. If our obstetrics knowledge block scores were much higher than our operations knowledge block scores, we would want to devote more study time to the operations chapter study suggestions and less time in the obstetrics chapter.

While you may ultimately choose to take the tests from each chapter and self-direct your study based on your results. The knowledge blocks and study guide give you the option to truly analyze your results and provide yourself with detailed study points for consideration.

If you work through the chapter in order and write down your scores for both the self-assessment and the test questions, I think you’ll find yourself rewarded with the detailed feedback you need to attack your knowledge deficits.

You may also decide to print out or tear out these few pages from the beginning of the guide to refer to as you work your way through the rest of the guide. Now let’s get on with the important work, studying for your National Registry test.
Sample Knowledge Self-Assessment

Each chapter of the study guide begins with a knowledge self-assessment. A narrative accompanies the ten knowledge blocks presented in each chapter. In this sample version, we will present three individual knowledge blocks chosen from among the sixty knowledge blocks in the full guide.

**Knowledge Block 1-8:**
Identify the common disease processes of the respiratory system.

There are numerous diseases common to the respiratory system. The EMT needs to be able to identify which underlying diseases or disorders may be associated with a patient’s dyspnea. Are you familiar with the sign and symptoms of these common underlying ailments?

Some of the more common disease processes are chronic obstructive pulmonary disease (asthma, emphysema, and bronchitis), congestive heart failure, myocardial infarction, pneumonia, anaphylaxis, pulmonary embolism, hyperventilation, and airway obstruction.

**Knowledge Block 2-8:**
Understand the etiology, presentation and treatment of patients experiencing various types of vascular emergencies.

Myocardial infarction isn’t the only vascular emergency that an EMT needs to be prepared to manage. Beyond the M.I. patient, there are several vascular emergencies that the EMT provider should understand.

Are you aware of the unique presentations associated with deep vein thrombosis, aneurism, aortic dissection and vascular occlusions?

Knowledge block 1-8 is the eighth knowledge block in chapter one, Airway and Breathing.

This knowledge block focuses primarily on the student’s ability to recognize and differentiate between the different disease processes. Anticipate questions from this knowledge block to focus on assessment and differential diagnosis.

Knowledge block 2-8 is the eighth knowledge block in chapter two, Cardiology. This block also focuses on assessment and differential diagnosis. There are also opportunities to ask questions about different treatment options for patient’s suffering from various vascular emergencies and prioritization of treatment options.

Before you move on, rate yourself on a scale of one to five in these two areas of knowledge based on the information in the knowledge block.
Knowledge Block 6-8:
Know the Ethical and Legal Obligations of an EMT-Basic.

Medical ethics and the legal tenants that guide medical care are not subjects that the EMT can afford to have a basic or cursory understanding. This is a subject worth spending a little extra time learning and reviewing frequently.

You should understand the definitions and legal tenants that comprise consent, abandonment, assault, battery, continuity of care, negligence, misfeasance, malfeasance and nonfeasance. You need to recognize and respond appropriately to Do Not Resuscitate orders and the obligations specified by the duty to act.

Your patient also has specific rights to privacy outlined in The Health Insurance Portability and Accountability Act. Every medical caregiver needs to know these guidelines.

How well do you know the laws that govern prehospital medicine?

The third sample knowledge block comes from chapter six. It is the eighth knowledge block in chapter six, Operations. The operations topics often get overlooked when students are reviewing their EMT textbooks.

This is a frequent problem subject for students who fail the exam. Think over the knowledge block and rate yourself on a scale from one to five before you move on to the fifteen question exam. The next fifteen questions come directly from these three knowledge blocks. They are written and formatted to closely resemble questions you might see on your National Registry exam.
Sample Questions

Answer the following fifteen questions sequentially and, preferably, in one sitting. In order to properly
gauge your base knowledge level, do not use reference material or assistance of any kind.

1) A 23 year old female reports a sudden onset of difficulty breathing with chest pain while she was
sitting on her couch, watching TV. Her skin is pale, cool and diaphoretic with respirations of 28, a pulse
of 112, and a blood pressure 132/90. Her lung sounds are clear and her only medical history is a recent
knee surgery. You suspect:
   a) Hyperventilation
   b) Drug overdose
   c) Asthma
   d) Pulmonary embolism

2) A 48 year old male patient with a history of chronic hypertension describes the sudden onset of a
ripping or tearing type pain in the center of his chest. His unlabored respirations are 22 breaths per
minute, his radial pulse is diminished on the right side at a rate of 118 beats per minute and his blood
pressure is 112/92. Treatment for this patient will focus on oxygenation and:
   a) Rapid preparation for potential hypovolemic shock
   b) Treatment in accordance with the local stroke protocol
   c) Rapid transport to a trauma receiving facility
   d) Treatment in accordance with the local myocardial infarction protocol

3) Which of the following is not a principal of medical negligence?
   a) Significance of disability
   b) Breach of duty
   c) Causation
   d) Harm

4) A 72 year old male reports difficulty breathing after walking up a flight of stairs. He is sitting upright
and leaning forward with his hands on his knees. He reports a 40 year smoking history and his vital signs
are respirations of 34 through pursed lips, pulse is 116 and blood pressure 158/96. You hear diffuse
wheezing in his lungs. You suspect:
   a) Anaphylaxis
   b) Emphysema
   c) Airway obstruction
   d) Pulmonary embolism
5) A mildly obese 62 year old female patient reports a new onset of pain and swelling in her right calf. You note a hardened red area that is warm to the touch and painful to palpate across the posterior calf. You suspect:

   a) Dissecting aneurysm  
   b) Localized trauma  
   c) Aortic dissection  
   d) Deep vein thrombosis

6) A police officer at the scene of an automobile accident overhears an exchange between an EMT and a patient in which the patient admits to having consumed alcohol prior to the accident. This release of information is known as:

   a) A breach of patient confidentiality  
   b) A violation of the duty to act  
   c) An incidental disclosure  
   d) A voluntary disclosure

7) A 32 year old male is having difficulty breathing after eating at a new restaurant. He presents with pale, diaphoretic skin, urticaria and wheezing in his lungs and his vital signs are 32 shallow respirations per minute, pulse 96 beats per minute, and blood pressure 146/88. You suspect:

   a) Emphysema  
   b) Pulmonary edema  
   c) Anaphylaxis  
   d) Cystic fibrosis

8) Vascular occlusions are most commonly caused by:

   a) Chronic hypertension  
   b) Atherosclerosis and embolus  
   c) Cerebrovascular accidents  
   d) Air embolus

9) An intoxicated patient has been involved in a vehicle collision. The EMT on scene decides to transport the patient to the hospital even though the patient has verbally refused medical care or transport. The determination to transport the patient is based on the fact that the patient:

   a) Is uncooperative  
   b) Lacks decision making capacity  
   c) Is deemed incompetent  
   d) Has consumed alcohol
10) Your 30 year old male patient is apneic and unconscious after eating at a restaurant. Witnesses state he was unable to speak and looked nervous and agitated. You suspect:

a) Pulmonary embolism  
b) Airway obstruction  
c) Anaphylaxis  
d) Asthma

11) A localized weakening and dilation of an arterial wall can create a bulge commonly known as an:

a) Embolus  
b) Aneurysm  
c) Occlusion  
d) Infarction

12) An alert and oriented adult patient with intact decision making capacity has refused medical evaluation. If an EMT touches this patient against his or her will the EMT can be charged with:

a) Kidnapping  
b) Misconduct  
c) Assault  
d) Battery

13) Which of the following is true regarding patients with chronic obstructive pulmonary diseases?

a) They tend to “trap” air in their lungs and have more trouble breathing out than breathing in  
b) Their lungs produce large quantities of pulmonary edema, clogging their alveolus  
c) They often present with pink, frothy sputum and a wet productive cough  
d) Their breathing difficulties are often precipitated by anxiety or a stress producing event.

14) Patients with a history of deep vein thrombosis or stroke are also at increased risk for:

a) Diabetes mellitus  
b) Asthma and emphysema  
c) Cardiac arrhythmia  
d) Pulmonary embolus
15) An EMT accidentally administers an inappropriate medication while transporting a patient. The EMT is directed by her immediate supervisor to not document the error on the patient care report. If the EMT decides to comply with the instruction she will commit:

   a) A breach of medical ethics
   b) A violation of patient confidentiality
   c) An act of insubordination
   d) An act of libel
Sample Question Answers and Rationales

Use this section to score your test, estimate the difficulty level you are performing at and adjust the knowledge block scores for your study guide at the end of the chapter.

Key to the Answer Key

Question #0: The Question will appear in bold.

a) Incorrect rationales will be explained next to their associated letter
b) Correct. The correct answer will appear in bold and have a brief explanation of why it is the correct choice.
c) Incorrect rationales will be explained next to their associated letter
d) Incorrect rationales will be explained next to their associated letter

A reminder of the available distracters will appear here

Correct? : Yes ☐ No ☐ (Mark one to keep track of your test score)

Knowledge Block 0-0: The name, number and title of the questions knowledge block appear here.
The National Registry category, sub-category and type appear here.

Question 1) A 23 year old female reports a sudden onset of difficulty breathing with chest pain while she was sitting on her couch, watching TV. Her skin is pale, cool and diaphoretic with respirations of 28, a pulse of 112, and a blood pressure 132/90. Her lung sounds are clear and her only medical history is a recent knee surgery. You suspect:

a) Incorrect. Hyperventilation patients don’t tend to have pale, cool, diaphoretic skin. These signs suggest true hypoxia.
b) Incorrect. Drug overdose is possible, but sudden onset of dyspnea is not a typical presentation for drug overdose.
c) Incorrect. Asthma would certainly produce the pale, cool, diaphoretic skin and similar vital signs, but the patient’s lung sounds would almost certainly present with wheezing, and asthma is more frequently brought on by exertion or an environmental trigger.
d) Correct. The patients pale, cool, and diaphoretic skin with clear lung sounds and associated chest pain are all typical signs of pulmonary embolism. Her recent surgery is an added risk factor. This is the best answer.

Correct? : Yes ☐ No ☐ (If yes, add one point to knowledge block listed below)

Knowledge Block 1-8: Diseases of the respiratory system

National Registry Category: Airway / Respiratory Abnormalities (AS) Difficulty: 3.3
Question 2) A 48 year old male patient with a history of chronic hypertension describes the sudden onset of a ripping or tearing type pain in the center of his chest. His unlabored respirations are 22 beats per minute, his radial pulse is diminished on the right side at a rate of 118 beats per minute and his blood pressure is 112/92. Treatment of this patient will focus on oxygenation and:

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</thead>
<tbody>
<tr>
<td><strong>Correct?</strong></td>
<td>Yes ☐ No ☐ (If yes, add one point to knowledge block listed below)</td>
</tr>
<tr>
<td><strong>Knowledge Block:</strong></td>
<td>2-8 Vascular Emergencies</td>
</tr>
<tr>
<td><strong>National Registry Category:</strong></td>
<td>Cardiology / Cardiovascular Diseases (T)</td>
</tr>
<tr>
<td>a) <strong>Correct.</strong> The hypertension history, ripping / tearing pain and diminished pulse on one side are all signs of aortic dissection. The vital signs suggest that the dissection has not yet ruptured. If the dissection ruptures the patient will experience profound hypovolemia and should be treated accordingly.</td>
<td>a) <strong>Rapid preparation for potential hypovolemic shock</strong></td>
</tr>
<tr>
<td>b) <strong>Incorrect.</strong> The chest pain and diminished pulse are not typical of stroke presentations.</td>
<td>b) <strong>Treatment in accordance with your local stroke protocol</strong></td>
</tr>
<tr>
<td>c) <strong>Incorrect.</strong> The patient is not having a traumatic event but may require rapid surgical intervention. A trauma facility might be appropriate, but this is not the best answer.</td>
<td>c) <strong>Rapid transport to a trauma receiving facility</strong></td>
</tr>
<tr>
<td>d) <strong>Incorrect.</strong> The type of pain and unilateral pulse weakness are not typical of myocardial infarction. MI should be a consideration in all chest pain patients, but this is not the best answer.</td>
<td>d) <strong>Treatment in accordance with your local myocardial infarction protocol</strong></td>
</tr>
</tbody>
</table>

---

Question 3) Which of the following is not a principal of medical negligence?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Correct?</strong></td>
<td>Yes ☐ No ☐ (If yes, add one point to knowledge block listed below)</td>
</tr>
<tr>
<td><strong>Knowledge Block:</strong></td>
<td>6-8 Patient Privacy, Ethics and EMS Law</td>
</tr>
<tr>
<td><strong>National Registry Category:</strong></td>
<td>Operations / Medical Legal (T)</td>
</tr>
<tr>
<td>a) <strong>Correct.</strong> The degree of harm or disability is not a factor in determining medical negligence.</td>
<td>a) <strong>Significance of disability</strong></td>
</tr>
<tr>
<td>b) <strong>Incorrect.</strong> For an EMT to be found medically negligent, it must be proven that the EMT had a duty to act and that duty to act was breached.</td>
<td>b) <strong>Breach of duty</strong></td>
</tr>
<tr>
<td>c) <strong>Incorrect.</strong> To be guilty of negligence, the providers conduct must be a substantial factor in the harm that was done. This is known as causation.</td>
<td>c) <strong>Causation</strong></td>
</tr>
<tr>
<td>d) <strong>Incorrect.</strong> To be found guilty of negligence, there must be some degree of harm done.</td>
<td>d) <strong>Harm</strong></td>
</tr>
</tbody>
</table>
### Question 4)
A 72 year old male reports difficulty breathing after walking up a flight of stairs. He is sitting upright and leaning forward with his hands on his knees. He reports a 40 year smoking history and his vital signs are respirations of 34 through pursed lips, pulse is 116 and blood pressure 158/96. You hear diffuse wheezing in his lungs. You suspect:

<table>
<thead>
<tr>
<th>Incorrect</th>
<th>Correct</th>
<th>Knowledge Block 1-8: Diseases of the respiratory system</th>
<th>Difficulty: 3.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Incorrect. Anaphylaxis would present with wheezes, but with his smoking history, age and pursed lip breathing, this is not the best answer. His hypertension also doesn’t fit the anaphylactic profile.</td>
<td>b) Correct. His smoking history and age are both suggestive of a C.O.P.D. history. His wheezing, brought on by exertion, tripoding and pursed lip breathing are all hallmark signs of emphysema.</td>
<td>National Registry Category: Airway / Breathing Abnormalities (AS)</td>
<td></td>
</tr>
<tr>
<td>c) Incorrect. Upper airway obstruction does not typically present with diffuse wheezing, nor is it brought on by exertion.</td>
<td>d) Incorrect. Pulmonary embolism often has a pain component. It doesn’t tend to cause diffuse wheezing, nor do P.E. patients tend to tripod or breathe through pursed lips.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correct? : Yes [ ] No [ ] (If yes, add one point to knowledge block listed below)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Question 5)
A mildly obese 62 year old female patient reports a new onset of pain and swelling in her right calf. You note a hardened red area that is warm to the touch and painful to palpate across the posterior calf. You suspect:

<table>
<thead>
<tr>
<th>Incorrect</th>
<th>Correct</th>
<th>Knowledge Block: 2-8 Vascular Emergencies</th>
<th>Difficulty: 2.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Incorrect. An aneurism can cause unilateral circulation compromise but this is not the best answer.</td>
<td>b) Incorrect. Localized trauma could present in this manner but the lack of traumatic history makes this unlikely.</td>
<td>National Registry Category: Cardiology / Cardiovascular Diseases (AS)</td>
<td></td>
</tr>
<tr>
<td>b) Incorrect. Localized trauma could present in this manner but the lack of traumatic history makes this unlikely.</td>
<td>c) Incorrect. An aortic dissection can cause unilateral circulation issues, but it would like be accompanied by other symptoms.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Incorrect. An aortic dissection can cause unilateral circulation issues, but it would like be accompanied by other symptoms.</td>
<td>d) Correct. The patient’s gender, age and body weight all place her in a higher risk category for DVT. The localized, warm, red painful area is the classic presentation of deep vein thrombosis.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correct? : Yes [ ] No [ ] (If yes, add one point to knowledge block listed below)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Question 6) A police officer at the scene of an automobile accident overhears an exchange between an EMT and a patient in which the patient admits to having consumed alcohol prior to the accident. This release of information is known as:

<p>| | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>a) Incorrect. If the disclosure to the police officer was unintentional and not easily avoidable, it is not a breach of patient confidentiality.</td>
<td>a) A breach of patient confidentiality</td>
</tr>
<tr>
<td>b) Incorrect. The duty to act is not a consideration in patient confidentiality.</td>
<td>b) A violation of the duty to act</td>
</tr>
<tr>
<td>c) Correct. Inadvertent and unplanned releases of information in the public domain are considered incidental disclosures.</td>
<td>c) An incidental disclosure</td>
</tr>
<tr>
<td>d) Incorrect. If the patient didn’t actively consent to, or offer this release of information, it is not a voluntary disclosure.</td>
<td>d) A voluntary disclosure</td>
</tr>
</tbody>
</table>

Correct? : Yes [ ] No [ ] (If yes, add one point to knowledge block listed below)

Knowledge Block: 6-8 Patient Privacy, Ethics and EMS Law

National Registry Category: Operations / Medical Legal (AS)

Difficulty: 2.1

Question 7) A 32 year old male is having difficulty breathing after eating at a new restaurant. He presents with pale, diaphoretic skin, urticaria and wheezing in his lungs and his vital signs are 32 shallow respirations per minute, pulse 96 beats per minute, and blood pressure 146/88. You suspect:

<p>| | |</p>
<table>
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</thead>
<tbody>
<tr>
<td>a) Incorrect. The patient’s age, lack of additional history and onset at rest are all not typical of emphysema patients.</td>
<td>a) Emphysema</td>
</tr>
<tr>
<td>b) Incorrect. Pulmonary edema is not usually associated with urticaria. It can produce wheezing but this is less common than rales or rhonchi.</td>
<td>b) Pulmonary edema</td>
</tr>
<tr>
<td>c) Correct. The new restaurant, onset at rest and wheezes are all suggestive of anaphylaxis. Urticaria is almost exclusively associated with anaphylaxis.</td>
<td>c) Anaphylaxis</td>
</tr>
<tr>
<td>d) Incorrect. With the unusual onset and lack of prior history it would be unrealistic to expect an EMT student to recognize cystic fibrosis with such limited information. Urticaria is not associated with cystic fibrosis. Cystic fibrosis does appear in many NR questions. For more info try: <a href="http://www.cff.org">www.cff.org</a></td>
<td>d) Cystic fibrosis</td>
</tr>
</tbody>
</table>

Correct? : Yes [ ] No [ ] (If yes, add one point to knowledge block listed below)

Knowledge Block 1-8: Diseases of the respiratory system

National Registry Category: Airway / Anaphylaxis (AS)

Difficulty: 3.0
### Question 8) Vascular occlusions are most commonly caused by:

<p>| | | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>a) Incorrect. Hypertension is a risk factor for vascular occlusions, but it is not the cause.</td>
<td>a) Chronic hypertension</td>
<td></td>
</tr>
<tr>
<td>b) Correct. The atherosclerosis disease process, complicated by blood clots, (embolus) are the cause of most vascular occlusions.</td>
<td>b) Atherosclerosis and embolus</td>
<td></td>
</tr>
<tr>
<td>c) Incorrect. Vascular occlusions cause cerebrovascular accidents (CVAs) not the other way around.</td>
<td>c) Cerebrovascular accidents</td>
<td></td>
</tr>
<tr>
<td>d) Incorrect. An air embolus could cause a vascular occlusion but this is a rare occurrence.</td>
<td>d) Air embolus</td>
<td></td>
</tr>
</tbody>
</table>

Correct? : Yes [ ] No [ ] (If yes, add one point to knowledge block listed below)

Knowledge Block: 2-8 Vascular Emergencies

National Registry Category: Cardiology / Myocardial Infarction (PATH) Difficulty: 1.9

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### Question 9) An intoxicated patient has been involved in a vehicle collision. The EMT on scene decides to transport the patient to the hospital even though the patient has verbally refused medical care or transport. The determination to transport the patient is based on the fact that the patient:

<p>| | | |</p>
<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>a) Incorrect. Patient’s willingness to cooperate has no bearing on their decision making capacity.</td>
<td>a) Is uncooperative</td>
<td></td>
</tr>
<tr>
<td>b) Correct. Patients can be transported against their will because they lack the decision making capacity to understand the risks of refusal and make an informed decision.</td>
<td>b) Lacks decision making capacity</td>
<td></td>
</tr>
<tr>
<td>c) Incorrect. While the word competence is often used in these situations, competence is a legal determination reserved for a court of law. An EMT judges decision making capacity, not competence.</td>
<td>c) Is deemed incompetent</td>
<td></td>
</tr>
<tr>
<td>d) Incorrect. The consumption of alcohol does not, in and of itself, deem a person unable to make decisions.</td>
<td>d) Has consumed alcohol</td>
<td></td>
</tr>
</tbody>
</table>

Correct? : Yes [ ] No [ ] (If yes, add one point to knowledge block listed below)

Knowledge Block: 6-8 Patient Privacy, Ethics and EMS Law

National Registry Category: Operations / Medical Legal (T) Difficulty: 2.6
### Question 10)

Your 30 year old male patient is apneic and unconscious after eating at a restaurant. Witnesses state he was unable to speak and looked nervous and agitated. You suspect:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Incorrect. Pulmonary embolism does not typically progress from asymptomatic to unconscious so fast. This is plausible, but not the best answer.</td>
<td>a) Pulmonary embolism</td>
</tr>
<tr>
<td>b) Correct. With the report of eating at onset, the inability to speak and the rapid progression of symptoms, upper airway obstruction is the best answer.</td>
<td>b) Airway obstruction</td>
</tr>
<tr>
<td>c) Incorrect. Eating at onset is somewhat suggestive of anaphylaxis but allergic reactions don’t cause aphasia or progress quite so rapidly.</td>
<td>c) Anaphylaxis</td>
</tr>
<tr>
<td>d) Incorrect. Asthma does not typically start at rest or progress so rapidly.</td>
<td>d) Asthma</td>
</tr>
</tbody>
</table>

Correct? : Yes  No  (If yes, add one point to knowledge block listed below)

| Knowledge Block 1-8: Diseases of the respiratory system | Difficulty: 3.3 |
| National Registry Category: Airway / Choking (AS) |   |

### Question 11)

A localized weakening and dilation of an arterial wall can create a bulge commonly known as an:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Incorrect. An embolus is a clot or foreign body in the vasculature that can occlude the vessel and obstruct blood flow.</td>
<td>a) Embolus</td>
</tr>
<tr>
<td>b) Correct. Weakening and bulging of the vessel wall is referred to as an aneurism. Separation of the vessel wall is known as a dissection.</td>
<td>b) Aneurysm</td>
</tr>
<tr>
<td>c) Incorrect. When an embolus gets stuck in a vessel and obstructs blood flow, we refer to it as an occlusion.</td>
<td>c) Occlusion</td>
</tr>
<tr>
<td>d) Incorrect. When heart muscle does not receive enough oxygen and begins to die it is referred to as infarction.</td>
<td>d) Infarction</td>
</tr>
</tbody>
</table>

Correct? : Yes  No  (If yes, add one point to knowledge block listed below)

| Knowledge Block: 2-8 Vascular Emergencies | Difficulty: 2.0 |
| National Registry Category: Cardiology / Vascular Diseases (PATH) |   |
**Question 12)** An alert and oriented adult patient with intact decision making capacity has refused medical evaluation. If an EMT touches this patient against his or her will the EMT can be charged with:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>Incorrect. Touching is not legally equivalent to kidnapping. If the patient is detained or moved against his or her will, then kidnapping may come in to play.</td>
</tr>
<tr>
<td>b)</td>
<td>Incorrect. Medical misconduct is usually defined by a particular organization or decided when a medical practitioner is measured against an established standard. This is not a legal charge.</td>
</tr>
<tr>
<td>c)</td>
<td>Incorrect. Assault is creating the fear of injury or harm.</td>
</tr>
<tr>
<td>d)</td>
<td>Correct. If an EMT touches the described adult against his or her will or without permission, it could be legally defined as battery.</td>
</tr>
</tbody>
</table>

Correct? :  Yes [ ] No [ ] (If yes, add one point to knowledge block listed below)

Knowledge Block: 6-8 Patient Privacy, Ethics and EMS Law

National Registry Category: Operations / Medical Legal (T)

Difficulty: 2.6

**Question 13)** Which of the following is true regarding patients with chronic obstructive pulmonary diseases?

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>Correct. C.O.P.D. patients tend to “trap” air in their lungs. Often, it is the buildup of CO2 in their lungs, secondary to the inability to completely exhale that creates significant physiologic problems.</td>
</tr>
<tr>
<td>b)</td>
<td>Incorrect. C.O.P.D. patients do not typically struggle with pulmonary edema.</td>
</tr>
<tr>
<td>c)</td>
<td>Incorrect. Pink, frothy sputum is often present with pulmonary edema. This is not a typical symptom in C.O.P.D. Nor is a wet cough.</td>
</tr>
<tr>
<td>d)</td>
<td>Incorrect. C.O.P.D. is a physiologic problem. While reassurance is important, it is not central to the resolution of their symptoms.</td>
</tr>
</tbody>
</table>

Correct? :  Yes [ ] No [ ] (If yes, add one point to knowledge block listed below)

Knowledge Block 1-8: Diseases of the respiratory system

National Registry Category: Airway / Airway Disease (PATH)

Difficulty: 3.4
### Question 14) Patients with a history of deep vein thrombosis or stroke are also at increased risk for:

<table>
<thead>
<tr>
<th>Incorrect</th>
<th>Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Incorrect. There is no significant correlation between diabetes and deep vein thrombosis.</td>
<td>a) Diabetes mellitus</td>
</tr>
<tr>
<td>b) Incorrect. DVTs do not make an individual more susceptible to these respiratory ailments.</td>
<td>b) Asthma and emphysema</td>
</tr>
<tr>
<td>c) Incorrect. While DVT does increase your risk of heart attack, it does not directly influence your risk for cardiac arrhythmia.</td>
<td>c) Cardiac arrhythmia</td>
</tr>
<tr>
<td>d) Correct. Deep vein thrombosis and stroke are caused by vascular occlusions. Pulmonary embolus is another type of vascular occlusion. Patients who have had DVT or stroke are also at risk for a subsequent pulmonary embolus.</td>
<td>d) Pulmonary embolus</td>
</tr>
</tbody>
</table>

Correct? Yes [ ] No [ ] (If yes, add one point to knowledge block listed below)

Knowledge Block: 2-8 Vascular Emergencies

National Registry Category: Cardiology / Myocardial Infarction (PATH)

Difficulty: 2.1

### Question 15) An EMT accidentally administers an inappropriate medication while transporting a patient. The EMT is directed by her immediate supervisor to not document the error. If the EMT chooses to comply with the instruction she will commit:

<table>
<thead>
<tr>
<th>Incorrect</th>
<th>Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Incorrect. Omitting a medical error from the patient care report, even if no harm was done, would violate medical ethics as well as be a criminal act. (Falsification of the medical record.)</td>
<td>a) A breach of medical ethics</td>
</tr>
<tr>
<td>b) Incorrect. Not reporting an error would not violate the patient’s right to privacy.</td>
<td>b) A violation of patient confidentiality</td>
</tr>
<tr>
<td>c) Incorrect. Insubordination is the act of deliberately refusing to follow a lawful order from a superior.</td>
<td>c) An act of insubordination</td>
</tr>
<tr>
<td>d) Incorrect. Libel is defined as a malicious or defamatory written statement.</td>
<td>d) An act of libel</td>
</tr>
</tbody>
</table>

Correct? Yes [ ] No [ ] (If yes, add one point to knowledge block listed below)

Knowledge Block: 6-8 Patient Privacy, Ethics and EMS Law

National Registry Category: Operations / Medical Ethics (T)

Difficulty: 2.4
# Sample Study Guide

## Knowledge Block 1-8: Diseases of the Respiratory System

**Correct Questions:**

- Test Score 0-5
- Self-Score 1-5
- Total Score 1-10

### Major Study Points:

- Sign and Symptoms of Common Respiratory Diseases
- Basic Respiratory Assessment
- Proper Treatment of Common Respiratory Diseases

## Knowledge Block 2-8: Vascular Emergencies

**Correct Questions:**

- Test Score 0-5
- Self-Score 1-5
- Total Score 1-10

### Major Study Points:

- Recognition of Vascular Emergencies
- Causes
- Differentiation of Vascular Emergencies
- Treatments

## Knowledge Block 6-8: Patient Privacy, Ethics and EMS Law

**Correct Questions:**

- Test Score 0-5
- Self-Score 1-5
- Total Score 1-10

### Major Study Points:

- Consent and Abandonment
- The Health Insurance Portability and Accountability Act. (HIPPA)
- Negligence and Duty to Act
- Good Samaritan Laws
- Do Not Resuscitate Orders
About the Author

Steve Whitehead is a firefighter paramedic for the South Metro Fire Rescue Authority in Lone Tree Colorado.

His first EMT job was in San Jose California with a private ambulance service called PacMed. Since that time he has been a paramedic field instructor, an EMS supervisor, a firefighter and an instructor of EMTs at all levels. He is currently an instructor with South Metro Fire’s EMT program. His experiences teaching and tutoring the South Metro EMT students inspired him to create The EMT Spot website and The EMT Advantage line of study and review products.

Steve has been writing for EMS journals for over a decade now. He has had the good fortune to see his articles published on the cover of EMS Magazine, Advanced Rescue Technology and JEMS.

All of Steve’s writing is produced in his home in Parker Colorado where he lives with his wife of 13 years and their two grade school age children. Steve’s family are active members of Southeast Christian Church in Parker and he is involved in volunteer outreach missions to Panama.

To enjoy more educational writing by Steve, visit www.theemtspot.com.
References

Questions for The EMT Advantage, National Registry Study Guide were researched and validated primarily using the following resources:

6. www.mayoclinic.com
10. www.nremit.org

This publication is an abbreviated version of The National Registry Study Guide. To purchase the full study guide and other products, visit The EMT Advantage at:

www.nationalregistystudyguide.com