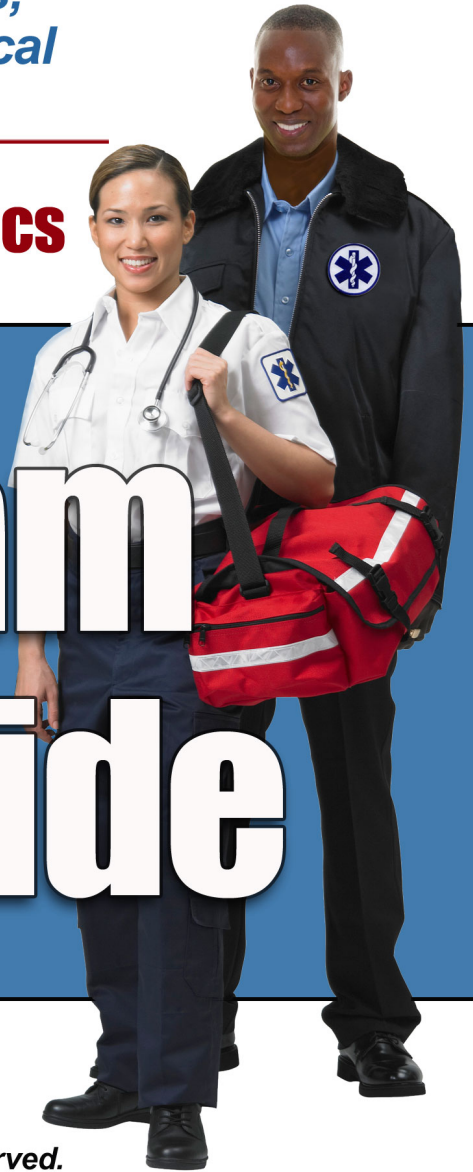


AHA & NREMT

*100 Questions, Answers & Rationales
Covering Recent Changes in AHA Guidelines,
NREMT Skills and National Emergency Medical
Services Education Standards*

Trusted by Over 70,000 EMTs & Paramedics

Update Exam & Study Guide



Published By:
EMT & Fire Training Inc.

Copyright EMT-National-Training.com - National Exams 2012 All Rights Reserved.



EMT  **EMR
EMT
EMT-185
AEMT
Paramedic**
EMT National Training

Taking the NREMT test or State EMT exam can be a painless experience if you are prepared with the knowledge of the course material AND an understanding of what to expect of the NREMT test itself. We have created this page to aid in answering some of the more common questions associated with taking NREMT and state EMT certification tests. This includes facts and advice related to taking and passing the exams. It is intended to aid the EMT candidate in his or her pursuit of certification and registration as an EMT B, EMT I, or Paramedic.

Many states have adopted the NREMT cognitive exam as their state exam, however there are a few states that still hold their own exam. The information given here is more specific for the NREMT Computer Adaptive Test (CAT), however the test taking tips are useful for any exam. If you are not going to be taking the NREMT exam, you should contact the state EMS office where you will be testing and see if they provide a study guide for their exam. These study guides are very useful for state specific exams.

Over the years the NREMT exam format has changed from a linear exam (paper and pencil) to the CAT exam. This is an adaptive exam and will vary in length. It is not graded like a traditional linear exam.

Facts That You Need To Know About The NREMT Exam

- NREMT test questions are multiple choice with 4 potential answers. A committee of 10-20 EMS experts, who must all agree that the question is in line with the most current practice analysis study, creates all questions. These EMS experts make sure that there is only one "best" or "correct" answer, and that "each incorrect answer has some level of plausibility." Additionally, each question and answer must be easily found in common text books used in teaching EMS classes.
- As of January 1, 2007 the NREMT has changed its exam formatting to a CBT (Computer Based Testing) method. Exams will no longer be delivered via a paper test and completed with a pencil. All testing will be performed at a computer workstation. PearsonVue testing centers all over the United States administer these tests.
- The CBT that the NREMT is now utilizing is called CAT or (Computer Adaptive Testing) and each exam is tailored specifically to the individual EMT candidate. This testing method is considered state of the art and uses a theory called IRT (Item Response Theory). IRT is a statistical way to measure a person's ability based on the fact that the probability of a person answering a question correctly is directly related to their ability and the difficulty level of the question. Combining CAT with IRT should make NREMT exams more precise, fair, and accurate. What does that mean? Basically each item (question) is given a weighted point value. This value is based on the difficulty of the question. A harder question has a higher point value. An easier question has a lower value.
- New CAT NREMT tests will deliver questions one at a time to the candidate and will NOT be randomly chosen. They are rated along the same ability scale as the candidate is exhibiting proficiency. The first questions on the exam are generally just below the passing standard. If a question is asked that is below the candidate's level of ability, the probability is high for the candidate to answer the question correctly. If a question asked is above a candidate's level of ability, they have a high probability of missing it. If the candidate answers the question correctly then a slightly more difficult question will be delivered next. As the difficulty of the questions increase, eventually the candidate will start to miss questions. The questions then become slightly

easier and the candidate will begin to answer correctly again. At this point in the exam the application algorithm calculates an ability estimate for this candidate and begins delivering questions that are slightly harder and slightly easier than the candidate's ability. As the CAT exam progresses, the ability estimate gets more and more precise as the pattern of right to wrong answers stabilizes around the client's true ability. The exam will end at the point when there is a 95% certainty that the candidate's true ability is above or below the passing standard. It can also end if you run out of questions or time, however both of these instances are rare.

- CAT and IRT match the question difficulty to the candidate's perceived level of ability, this limits the number of questions delivered as well as increases accuracy.
- Exam fees can be paid online at the NREMT website, but you must first be registered and sign into your account. You can pay by credit card, or with a payment voucher if your school provides one. You may also mail in payment, however this will delay your ability to schedule your exam until the payment has cleared.
- If you do not pass the exam you may retake it after 14 days. This period is to provide you with time to study.
- NREMT test results are generally available within 1 to 2 business days on the NREMT website. Check your exam results here www.nremt.org

Advice On How To Take And Pass The NREMT Exam And State EMT Tests

This advice has been gleaned from dozens of sources. Information contained here has been compiled from interviews with EMTs and Paramedics who have taken and passed the tests multiple times. It has also been gathered from EMS related discussion forums and nationally recognized test-taking authorities.

What Material To Study For The NREMT Exam

- Technically, you should know everything that was covered in the EMT course materials. There aren't any secret methods or insights that can replace proper test preparation, but some things are common. The tests are heavy in the basics. Know CPR and shock as well as all of the segment categories of the test itself i.e. Airway, Ventilation and Oxygenation; Trauma; Cardiology; Medical; and Operations. Know the major components of the airway and the normal ranges of respiration for adults and pediatric patients. Know diabetic emergencies and the various causes of syncope. You will see about 15% of your questions related to pediatrics, and about 85% related to adults. These will be spread out through the 5 categories listed above.
- A large portion of the exam is related to operations and many students overlook this. Since September 11, 2001 a great effort has been made to incorporate more education about NIMS and ICS with regard to EMS. Understand how these systems work and how they apply to a mass casualty and you will be a step ahead of other candidates.
- The NREMT exam is NOT based upon the textbook you used in your class. The exam is based upon the NREMT Practice Analysis done every five years. The exam questions are written to fall within the Department of Transportation EMT Curriculum. EMT textbooks only give you their

interpretation of those standards. (NOTE: The new National EMS Education Standards are replacing the DOT Curriculum and all the EMS levels are changing and evolving right now and over the next few years. We will keep things updated and posted here as this evolution occurs. You should check the NREMT website and look under their news link to keep abreast of current information about their testing process.)

- Remember, although the NREMT exam looks for a minimum entry-level competency, nobody wants a "just made it by the skin of their teeth" partner. Know your stuff. The more knowledge you have about EMS, the shorter your test will be. If you are answering questions well above the competency line, your exam will end closer to the minimum number of questions rather than the maximum number of questions.
- Obviously take advantage of the EMT and Paramedic Practice Tests here in this book and on the website. There is detailed score tracking and exam review features that let you see your strong and weak areas while you continue to take exams and improve. Identify your strong and weak areas so you can study to improve all around. Use online information resources like Wikipedia to help broaden your subject knowledge and branch out from the knowledge of a single textbook.

Before Taking The NREMT Exam Or State Test

- Eat a well balanced diet and drink plenty of water the day before. Include B vitamin foods like bananas, oatmeal, and raisins, and get plenty of rest. Reschedule if you are sick. Don't attempt the test if you aren't feeling your best.
- Don't cram! If you don't know it the night before the test, you will most likely not know it for the test. Relax or sleep instead of cramming.
- Don't consume a bunch of coffee or sugar before the exam it will only make your anxiety worse. Studies show that consuming caffeine and/or sugar actually slows your brain down and results in lower grades on exams.
- Study regularly for a few weeks before you test. Use the resources from this website, and any other resources you might have to study. Identify your weak areas and then focus your learning in those areas. If possible, you should study for a couple of weeks after completing your EMS course, and then test. Don't wait a long time if you have the ability to test sooner.
- Know exactly where the test center is and arrive early to eliminate the stress of being late. Remember, you have to be signed up for the test. You cannot just walk in and take it. Bring your photo ID and a couple of pencils. Scrap paper will be provided for you and it must be turned in with your exam.
- When you go to take the test dress in multiple layers so that you can shed what you do not need and still be comfortable. Temperatures of testing centers can vary a great deal throughout the day especially if it is a rarely used room or building. Being nervous will cause your vessels to constrict and you will feel colder than you might normally feel. Shivering during a test is no fun!
- Go to the bathroom before the test. You are allowed to go during the exam, but take care of it sooner rather than later. If you have to leave the testing room you will be required to take one form

of ID with you while the other stays within the testing center, and it will be verified each time you leave and enter.

- You must bring two forms of ID to the exam site, and at least one of them must have a photo ID.

During The NREMT Exam Or State Test

- You CANNOT skip a question and come back to it later. The nature of the CAT exam requires that you answer each question individually before any additional questions are delivered. The next question you get delivered is based on how you answered the previous questions. This is why you must make a choice before you can proceed.
- Look out for words like EXCEPT, ALWAYS, NEVER, MOST APPROPRIATE and other qualifiers. Anything that puts limits on the potential answer should be a flag to slow down and read the question and all answers very carefully.
- Read the whole question thoroughly at least a couple of times and formulate the answer in your head BEFORE you look at the answer choices. If you look at the answer choices prior to understanding the question completely, you can be lead to choose an incorrect answer. The test is timed, but by slowing down, you will actually have a shorter test. Don't worry about the time, worry about making the correct choice.
- For each question there are 4 potential answers. All of the choices must have some plausibility to them. It is possible that all 4 choices are correct, or that all 4 choices are wrong. You must choose the "most" correct choice available, even if it is not what you would normally do first.
- Do not complicate the scenario or situation. Do not bring elements into the questions that are not there. This will cause you to overlook the basics, which is probably what the question is testing for.
- Relax, and remember to breath adequately. Slow deep your breath by breathing in through your nose, and then exhaling out through your mouth. Repeat. Do this as often as you find yourself hurrying, rushing, or getting angry.

The NREMT's Newest Test Plan

The National Registry test plan changed on September 1, 2010. The new test plan now covers five topic areas: Airway, Ventilation and Oxygenation; Trauma; Cardiology; Medical and Operations. This plan applies to all national EMS certification levels.

A total of 85% of the exam items cover adult patients and 15% cover pediatric patients. Former items that covered OB are now part of the medical section of the exam. Examinations are not scored on the basis of topic areas (sections). Passing an examination still requires successful demonstration of entry-level competency over the entire domain of the test.

The changes in the test plan are the result of an NREMT research project that prioritized tasks all EMS providers accomplish while providing care. The NREMT test plan is designed to cover the important tasks of the job. The NREMT Board adopted this plan in November of 2009. Items in the test bank are the same items that were in previous test banks. The emphasis is just different because

the NREMT adjusted the emphasis of the test based upon EMS provider data.

The exams based on the new test plan do not contain new content outlined in the upcoming National EMS Scope of Practice and the National EMS Education Standards. The NREMT will announce in the near future when this new content will be part of the live items on our certification examination. (From NREMT website.)

We have chosen to leave the old categories on this test preparation website for your continued convenience. This allows you to see if you are struggling in the OB and pediatric categories so you can do more studying there. Since the change is only on how the items are delivered during the NREMT test we feel you will benefit from being able to continue seeing all the category results.

The NREMT First Responder Exam

Has between 80 and 110 questions. You have 1 hour and 45 minutes to complete the exam. Cost of the NREMT First Responder Exam is \$65.00. The exam will cover the entire spectrum of EMS care including: Airway, Ventilation, Oxygenation; Trauma; Cardiology; Medical; and EMS Operations. Items related to patient care are focused on adult patients (85%) and pediatric patients (15%). In order to pass the exam, you must meet a standard level of competency. The passing standard is defined by the ability to provide safe and effective entry-level emergency medical care.

The NREMT EMT-Basic Exam

Has between 70 and 120 questions. You have two hours to complete the test. Cost of the NREMT-Basic Exam is \$70.00. The exam will cover the entire spectrum of EMS care including: Airway, Ventilation, Oxygenation; Trauma; Cardiology; Medical; and EMS Operations. Items related to patient care are focused on adult patients (85%) and pediatric patients (15%). In order to pass the exam, you must meet a standard level of competency. The passing standard is defined by the ability to provide safe and effective entry-level emergency medical care.

The NREMT EMT-185 Exam

Has between 85 and 135 questions. Cost of the NREMT- Intermediate 85 Exam is \$100.00. You have 2 hours and 15 minutes to complete the test. The exam will cover the entire spectrum of EMS care including: Airway, Ventilation, Oxygenation; Trauma; Cardiology; Medical; and EMS Operations. Items related to patient care are focused on adult patients (85%) and pediatric patients (15%). In order to pass the exam, you must meet a standard level of competency. The passing standard is defined by the ability to provide safe and effective entry-level emergency medical care.

The NREMT EMT-199 Exam

The EMT-199 exam is different from all the other levels. It is only a CBT test, and has 150 questions. According to the NREMT website it is not an adaptive test. Cost of the NREMT-Intermediate 99 Exam is \$100.00. The exam will cover the entire spectrum of EMS care including: Airway, Ventilation, Oxygenation; Trauma; Cardiology; Medical; and EMS Operations. Items related to patient care are focused on adult patients (85%) and pediatric patients (15%). In order to pass the exam, you must meet a standard level of competency. The passing standard is defined by the ability to provide safe and effective entry-level emergency medical care.

The NREMT EMT-P Exam

Has between 80 and 150 questions and you have 2 hours and 30 minutes to complete the exam. Cost of the NREMT Paramedic Exam is \$110.00. The exam will cover the entire spectrum of EMS care including: Airway, Ventilation, Oxygenation; Trauma; Cardiology; Medical; and EMS Operations. Items related to patient care are focused on adult patients (85%) and pediatric patients (15%). In order to pass the exam, you must meet a standard level of competency. The passing standard is defined by the ability to provide safe and effective entry-level emergency medical care.

How NREMT Exams and Questions are Constructed

Most of the National Exams given in the United States follow the formula below in developing questions. The NREMT is one of these tests. If you start to understand what type of questions you are being asked, it will allow you to begin to know how to apply the correct response. This is some deep reading, but has helped many people in their test taking. Read through the information, and then see if you can start to figure it out as you take practice tests. We will try to give a few examples at the end.

In 1956, Benjamin Bloom headed a group of educational psychologists who developed a classification of levels of intellectual behavior important in learning. Bloom found that over 95% of the test questions students encountered required them to think only at the lowest possible level...the recall of information.

Bloom identified six levels within the cognitive domain, from the simple recall or recognition of facts as the lowest level, through increasingly more complex and abstract mental levels, to the highest order, which is classified as evaluation. Verb examples that represent intellectual activity on each level are listed here.

1. Knowledge: arrange, define, duplicate, label, list, memorize, name, order, recognize, relate, recall, repeat, reproduce, state.

2. Comprehension: classify, describe, discuss, explain, express, identify, indicate, locate, recognize, report, restate, review, select, translate.

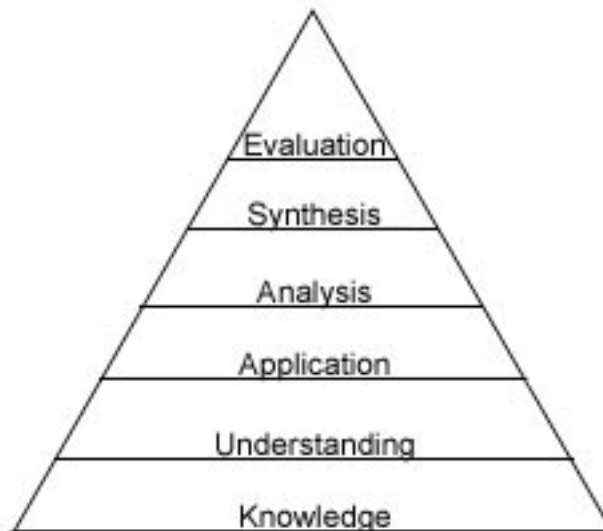
3. Application: apply, choose, demonstrate, dramatize, employ, illustrate, interpret, operate, practice, schedule, sketch, solve, use, write.

4. Analysis: analyze, appraise, calculate, categorize, compare, contrast, criticize, differentiate, discriminate, distinguish, examine, experiment, question, test.

5. Synthesis: arrange, assemble, collect, compose, construct, create, design, develop, formulate, manage, organize, plan, prepare, propose, set up, write.

6. Evaluation: appraise, argue, assess, attach, choose, compare, defend, estimate, judge, predict, rate, core, select, support, value, evaluate.

The chart below shows the increasing level of complexity of question construction.



The NREMT exam follows a similar formula in that it starts with the basic Knowledge then begins to increase the style of question to determine the candidate's true grasp of a subject. This is why you will see similar questions during the test. Questions will be written in a slightly different way to see if you truly grasp the concept around it.

Questions given during your training are questions in the "knowledge" category 80% to 90% of the time. These questions are not bad, but using them all the time is. Instructors should try to utilize higher order level of questions. These questions require much more "brain power" and a more extensive and elaborate answer. Below are the six question categories as defined by Bloom. After each one is an example of how the question would be worded (started) so that you can begin to decipher at what level this question is being formed.

KNOWLEDGE

- Remembering;
- Memorizing;
- Recognizing;
- Recalling identification
- Recall of information
 - Who, what, when, where, how ...?
 - Describe

COMPREHENSION

- Interpreting;
- Translating from one medium to another;
- Describing in one's own words;
- Organization and selection of facts and ideas
 - Retell...

APPLICATION

- Problem solving;
- Applying information to produce some result;
- Use of facts, rules, and principles;

- How is...an example of ...?
- How is...related to ...?
- Why is...significant?

ANALYSIS

- Subdividing something to show how it is put together;
- Finding the underlying structure of a communication;
- Identifying motives;
- Separation of a whole into component parts;
 - What are the parts or features of ...?
 - Classify...according to...
 - Outline/Diagram...
 - How does...compare/contrast with...?
 - What evidence can you list ...?

SYNTHESIS

- Creating a unique, original product that may be in verbal form or may be a physical object;
- Combination of ideas to form a new whole;
 - What would you predict/infer from...?
 - What ideas can you add to...?
 - How would you create/design a new...?
 - What might happen if you combined...?
 - What solutions would you suggest for...?

EVALUATION

- Making value decisions about issues;
- Resolving controversies or differences of opinion;
- Development of opinions, judgments, or decisions
 - Do you agree...?
 - What do you think about...?
 - What is the most important...?
 - Place the following in order of priority...
 - How would you decide about...?
 - What criteria would you use to assess...?

This is the nuts and bolts of how an NREMT exam is built. Below is an example of how an NREMT question is constructed. This will give you some insight into the thinking behind each question.

Steps to Question Writing

A well-designed multiple-choice item consists of three main components: a stem (asks a question or poses a statement which requires completion), key (the correct answer/s), and distracter(s) (incorrect option/s). The following section is designed to enhance the candidate's understanding of the NREMT question writing process.

Step 1. Select an area of the test plan for the focus of the item.

* Patient Assessment

Step 2. Select a subcategory from the chosen area of the test plan.

* Multiple patient incidents

Step 3. Select an important concept within that subcategory.

* Assess and triage among a group of patients to prioritize the order of care delivery

Step 4. Use the concept selected and write the stem.

* The EMT arrives on scene of a vehicle accident.

Which is the most critical patient that should be transported first?

Step 5. Write a key to represent important information the entry-level EMT should know.

* Altered Level of Consciousness

~ A patient who doesn't remember the accident or what the day is

Step 6. Identify common errors, misconceptions, or irrelevant information.

* Distracting injuries

* Smell of alcohol

* Lack of understanding of expected findings related to a specific clinical finding

Step 7. Use the previous information and write the distracters

~ A patient who has a large bleeding gash to the right arm

~ A patient who smells of alcohol and is having trouble walking

~ A patient with moderate Alzheimer's disease (AD) who is asking to talk with the spouse who died several years ago

Step 8. Complete the item using the stem, key, and distracters.

The EMT arrives on scene of a multiple vehicle accident. After assuring scene safety and assessing the patients, whom should the EMT transport first?

1. The patient who doesn't remember the accident or what day it is. (Key)

2. The patient with a large bleeding gash to the right arm.

3. The patient who smells like alcohol and is having trouble walking straight.

4. The patient, whose family states, has moderate Alzheimer's disease and is asking to talk to a spouse who died several years ago.

In this example you can see that the question is asked at the Evaluation level of Bloom's Taxonomy. That is the highest form of question. It requires you to know information about each answer option, and then weigh each against the other to determine an order of care. In this sample question you can see that a patient with an altered level of consciousness would be the most critical given the information you have. A large bleeding gash is a distracting injury, easily treated with bandaging, and not requiring the most immediate transport. A patient who smells like alcohol and is possibly intoxicated does not in itself warrant immediate transport. This would probably be the second most critical due to mechanism and not being able to determine LOC as easily as others. The patient who is asking to speak to a dead spouse has a disease that would make this type of response normal. This is the type of question that the NREMT likes to give. It requires you to really think about each option and only use the information presented in the question and answers.

Question 1: Which of the following diastolic pressures would be within normal range for a healthy adult?

- a. 55 mm Hg
- b. 95 mm Hg
- c. 105 mm Hg
- d. 125 mm Hg

Question 2: You are called to a scene of a 3-year-old who is not breathing and is pulseless. Your CPR should include compressions at what depth?

- a. 1-2 inches
- b. 1.5-2.5 inches
- c. At least 1/3rd the depth of the chest
- d. No compressions, it's a child

Question 3: You and your partner Genovese suspect a significant MOI to a patient who has been in a high-speed front end collision. In what order should you do your assessment?

- a. Primary survey - SAMPLE history - Secondary assessment
- b. SAMPLE history - Rapid trauma assessment - Focused physical
- c. Vital signs - SAMPLE history - Secondary survey
- d. Focused trauma - SAMPLE - Baseline vitals

Question 4: You and your partner Ryan arrive on scene to find 2 bystanders doing CPR on an elderly man. While Ryan hooks up the AED, you question the two bystanders and begin assisting with CPR. They say they found him like this just before the ambulance arrived. After approximately 2 minutes of CPR, an analysis is run on the AED and a shock is delivered. Your next action should be?

- a. Begin CPR with two quick rescue breaths
- b. Check for a pulse and begin CPR if no pulse is found
- c. Do 2 minutes of CPR beginning with chest compressions
- d. Check his pulse and shock again if it is not there

Question 5: You are doing CPR by yourself on a 77 year old man who suddenly went into cardiac arrest and stopped breathing. The most effective way to check the adequacy of your ventilations is..?

- a. Check the pupils to see if they are PERL
- b. Pulse in the carotid artery during compressions
- c. Check to see that his cheeks puff out with each breath given
- d. Looking for the chest to rise and fall

Question 6: You are called to a neighborhood pool where a 5 year old girl was found floating unconscious. She is cyanotic and has no muscle tone. Your partner Greg does not find a pulse and the child is not breathing. Your CPR should include a compression to ventilation ratio of _____ and each compression should be at a depth of _____.

- a. 30:2 / one third the diameter of the chest
- b. 15:2 / one third the diameter of the chest

- c. 30:2 / 1.5 to 2 inches in depth
- d. 15:2 / just enough to give adequate chest rise

Question 7: You and your partner find an adult male pulseless and apneic. At what rate should your CPR compressions be delivered?

- a. 170 compressions per minute
- b. 109 compressions per minute
- c. 60-80 compressions per minute
- d. At least 90 compressions per minute

Question 8: You are ventilating an adult patient who is apneic. According to the AHA, approximately what volume of air should you deliver during each ventilation?

- a. 80ml-100ml
- b. 100ml-500ml
- c. 500ml-1000ml
- d. None of the above

Question 9: A two year old boy was pulled from a house fire and handed to you. His weak shallow breathing necessitates assisted ventilations. You put him on high flow oxygen assisted with a BVM at approximately 18 breaths per minute. After 10 minutes of transport, the child's pulse is 50 bpm. What should you do next?

- a. Begin chest compressions
- b. Increase breaths per minute to 28
- c. Dress his burns and continue transport
- d. Call medical control to ask for instructions

Question 10: According to the 2010 AHA guidelines, how many shocks should be delivered prior to resuming CPR?

- a. 1 shock
- b. 2 shocks
- c. 3 shocks
- d. 5 shocks

Question 11: You and your partner are performing CPR on a 72 year old female who suddenly went unconscious and stopped breathing during a hospital transfer. Your CPR will utilize:

- a. Chest compressions of at least 100 a minute with about 1 breath every 5-6 seconds
- b. Compressions at least 2 inches deep with one breath every 3-5 seconds
- c. 10 to 12 breaths per minute with a tidal volume of 1200ml to 1500 ml
- d. None of the above are correct

Question 12: Your patient is a 33 year old female who fell off the back of a motorcycle going approximately 20 MPH. Her respirations are irregular at 8 a minute. An OPA has been inserted and ventilations are being assisted with a BVM and 100% O₂ at a rate and tidal volume of _____. C-Spine precautions have been taken and she is packaged and moved to the ambulance where she stops breathing and there is no palpable pulse. CPR is started and the lead paramedic does a rapid sequence intubation. The BVM is attached to the ET tube and ventilations are restarted at a rate of _____.

- a. 10 to 12 breaths per minute. Tidal volume of just enough air to give adequate chest rise. / 8 to 10 breaths per minute without pauses in compressions.
- b. 10-12 breaths per minute. Tidal volume of approximately 800 ml. / 5-6 breaths per minute with pauses for ventilation delivery over 1 second.
- c. 12 to 20 breaths per minute. Tidal volume of just enough air to make the chest rise with each ventilation. / 10-12 breaths per minute with no interruption of compressions to deliver ventilations.
- d. 5 to 6 breaths per minute. Tidal volume of approximately 600 ml. / 8-10 breaths per minute with pauses to deliver compressions.

Question 13: You arrive on scene of a shooting where law enforcement has secured the scene. Which of the following answers contain the most accurate sequence of actions according to the NREMT trauma management skill sheet?

- a. Determine the number of patients - Consider C-spine stabilization - Assess the patient's airway - Get a set of vital signs
- b. BSI - Determine the MOI - Get a sample history - Do a secondary assessment on the wound - Make transport decision
- c. General impression of the patient - Make transport decision - Treat life threats - Get a set of vital signs
- d. BSI - Direct pressure on the wound - Assess airway - Transport decision - Get vital signs

Question 14: Your patient is a 10 year old girl who was pulled unconscious from a pool. Lifeguards have been performing assisted ventilations on her with high flow O₂ for about 15 minutes. She is not breathing on her own or perfusing adequately and has a pulse rate of 55 bpm. What would be the proper course of action?

- a. Attach the AED and analyze
- b. Increase the O₂ flow rate to super high flow or 20 lpm
- c. Initiate chest compressions at a minimum of 100 per minute
- d. None of the above

Question 15: You are providing life support and performing CPR on a 53 year old male who had an unwitnessed collapse. The defibrillator was attached, an analysis was performed, and a shock was delivered. What should you do next?

- a. Check his pulse and deliver another shock if his pulse is absent
- b. Begin CPR with chest compressions
- c. Begin CPR with two quick rescue breaths
- d. Check his pulse and begin CPR if absent

Question 16: In 20 seconds of CPR you should deliver approximately how many chest compressions?

- a. 11 compressions
- b. 23 compressions
- c. 35 compressions
- d. 100 compressions

Question 17: Your patient is the victim of a moderate speed MVA. The patient is unconscious and not breathing. You attempt to open their airway with a jaw thrust maneuver and are unsuccessful. What should you do next?

- a. Use the head tilt chin lift maneuver
- b. Use the jaw thrust maneuver again
- c. Move the patient to a supine position and again attempt to open their airway with the jaw thrust maneuver
- d. Put in an OPA and prepare to suction

Question 18: You and your partner Nhabib have been dispatched to a home for an unknown illness of a 6-year-old girl. Of the following choices of vital signs, which would you hope to find in this patient?

- a. 31 breaths per minute, pulse 64, systolic BP 90
- b. 20 breaths per minute, pulse 141, systolic BP 125
- c. 14 breaths per minute, pulse 75, systolic BP 80
- d. 24 breaths per minute, pulse 120, systolic BP 98

Question 19: Dispatch has just called you to Lost Lake where a man has fallen out of his boat and is likely suffering from hypothermia. You and your partner Sheila arrive to find a man and a woman doing CPR on a 60ish male. When you and Sheila begin CPR, what rate and depth of compressions will you use?

- a. 30:2 / one third to one half the depth of the chest
- b. 15:2 / 1.5 to 2 inches
- c. 15:2 / one third to one half the depth of the chest
- d. 30:2 / at least 2 inches

Question 20: Which of the following patients is bradypnic? Patient 1 is a 19-year-old male with a respiratory rate of 9 breaths per minute, patient 2 is a 6 month old boy with a rate of 40, patient 3 is an 11-year-old girl with a respiratory rate of 20, and patient 4 is a 51-year-old female with a respiratory rate of 20.

- a. Patient 1
- b. Patient 2
- c. Patient 3
- d. Patient 4

Question 21: Dispatch has called you and your partner Diego to the scene of a multiple vehicle collision. Your triaged patient is a 6 year old boy who has facial lacerations and is pulseless. You and your partner begin CPR:

- a. At a rate of 100 compressions per minute with one breath every 5-6 seconds
- b. At a ratio of 15:2 with a compression depth of one third the depth of the chest
- c. With chest compressions at a rate of 30:2 with one breath every 3-5 seconds
- d. With 12 to 20 breaths per minute with a tidal volume of 800ml for each breath

Question 22: You are called to a neighborhood pool where a 5 year old girl was found floating unconscious. She is cyanotic and has no muscle tone. Your partner Greg does not find a pulse and the child is not breathing. Your CPR should include a compression to ventilation ratio of _____ and each compression should be at a depth of _____.

- a. 15:2 / one third to one half the depth of the chest
- b. 15:2 / one third of the anterior-posterior diameter of the chest
- c. 30:2 / 1.5 to 2 inches in depth
- d. 15:2 / just enough to give adequate chest rise

Question 23: You and your partner Bob are just pulling up to a call for a man down with CPR in progress. Dispatch has told you that the man has an extensive cardiac history and had just finished golfing with friends when he collapsed in the parking lot. According to the AHA which of the sequences is most correct?

- a. Turns on AED power, Attaches AED to the patient, Check pulse and Initiate analysis of the rhythm
- b. BSI, Briefly question rescuers about arrest events, Analyze rhythm, Check pulse
- c. BSI, Check pulse, Begin compressions, Open airway
- d. BSI, Check pulse, Open airway, Begin compressions,

Question 24: You and your partner Naven have just arrived at a home where a woman in her 70's was reported to have passed out. You enter the residence to find a man in his 20's performing rescue breathing on the elderly woman who is supine on the floor. Naven attaches the AED and advises the man to move away. He pushes the analyze button and no shock is advised. The two of you begin CPR, delivering approximately _____. After 1 cycle of CPR an elderly gentleman enters the room and shows you a valid looking DNR signed by the patient and her doctor. What should you do? _____

- a. 12 breaths and 200 compressions over 2 minutes / Call medical control and ask for guidance
- b. 6 breaths and 110 compressions over 1 minute / Respect the DNR
- c. 12 to 20 breaths and 100 compressions over 1 minute / Respect the DNR
- d. 6 breaths and 100 compressions per minute / Contact the signing doctor to verify authenticity

Question 25: You and your partner Juan arrive on scene to a possible drowning. Coming through the back gate of the house you see two men doing CPR on a child of 8 or 9 years of age. When you and Juan begin CPR, what rate and depth of compressions will you use?

- a. 30:2 / one third to one half the depth of the chest
- b. 15:2 / 2 to 2.5 inches
- c. 15:2 / at least one third the depth of the chest
- d. 30:2 / enough to give adequate chest rise

Question 26: You arrive on scene with your partner Joe to find an 7 year old boy unconscious after being dragged from the water. He is not breathing and has no pulse. CPR in this case should include_____.

- a. 30:2 compression to ventilation ratio
- b. 15:2 compression to ventilation ratio
- c. 5:1 compression to ventilation ratio
- d. 30:1 compression to ventilation ratio

Question 27: Your patient is a 61 year old male who has fallen from a step ladder while hanging Christmas lights. He fell approximately 5 feet onto a deck railing and has a contusion on the left side of his neck and head. He is not breathing. Suspecting a possible c-spine injury you attempt to open his airway with the jaw thrust maneuver, but are not successful. How will you next try to open his airway?

- a. Use the jaw tilt maneuver
- b. Use the new head tilt jaw thrust maneuver
- c. Use the head tilt chin lift maneuver
- d. Use the jaw thrust maneuver again

Question 28: You and your partner Bob are called to the scene of a man down. The report said the man has no pulse and that family members are doing CPR. Upon arriving at the scene what 3 things are you going to do first?

- a. Open their airway, tell the bystander to stop CPR, and put your gloves on
- b. Question the bystanders, direct them to stop CPR ,and check for pulse
- c. Hook up the AED, open their airway, and insert an adjunct
- d. Attach the AED, tell everyone to stand back, and hit the analyze button

Question 29: Your patient is an 8 year old girl who fell from a swing and hit her head. She has a pulse but is not breathing. Your CPR should include what?

- a. Breaths at a rate of 12-20
- b. Breaths at a rate of 10-12
- c. Breaths at a rate of 20-30
- d. Chest compressions and ventilations at a ratio of 30:2

Question 30: You are walking through a grocery store when you see a group of people crowded around someone on the floor. You walk over and find a 48 y/o female pulseless and apneic. What rate and depth of compressions will you use?

- a. 30:2 / at least 2 inches
- b. 30:2 / 1.5 to 2 inches
- c. 15:2 / one third to one half the depth of the chest
- d. 30:2 / one third to one half the depth of the chest

Question 31: Chest compressions on a newborn that is not breathing adequately should be done at what depth?

- a. 1/4 inch
- b. about 1/3 to 1/2 the depth of the chest
- c. 1 inch
- d. 1.25 inch

Question 32: You and your partner Gwen are called to the scene of an unknown injury accident involving a 50ish male patient. En route dispatch again radios you and reports that the man does not have a pulse and family members are doing CPR. When you arrive on scene a bystander tells you that the patient was fine and then just dropped like a rock. According to AHA AED Guidelines with CPR in progress, which of the following answers contains the most appropriate action for you to take?

- a. Attach the AED, tell everyone to stand back, and analyze the man's rhythm
- b. Question the bystanders, direct them to continue CPR, and analyze the man's rhythm
- c. Hook up the AED, open the man's airway, and insert an oral adjunct
- d. Open the man's airway, tell the bystander to stop CPR, and shock him

Question 33: You and your partner arrive at the home of a 59 year old male with a history of acute pulmonary edema. The patient is conscious and breathing at a rate of 28 breaths/min. Which treatment is best indicated?

- a. Begin mouth-to-mask resuscitation.
- b. insert an Oropharyngeal airway
- c. insert a Nasopharyngeal airway
- d. use a Continuous Positive Airway Pressure (CPAP) device.

Question 34: Dispatch has contacted your unit in response to a 911 call from a person at a nearby lake. The reporting party says a boat ran ashore throwing several people into a wooded area. You and your partner Zeek arrive to find 3 people with minor cuts and lacerations doing CPR on a woman in her 30's. They tell you that the patient was thrown into some trees when the boat hit ground. Zeek takes a quick pulse check and does not find a carotid pulse. The two of you begin CPR. You should deliver approximately _____ per minute via BVM as you load the patient into the ambulance. During the 30 minute transport, a simple oral adjunct is inserted and an additional pulse check reveals that the woman now has a good palpable pulse. At what rate should you now ventilate this patient? _____

- a. 6 breaths / 10 to 12 breaths per minute
- b. 10 to 12 breaths / 12 to 20 breaths per minute
- c. 8 to 10 breaths / 10 to 12 breaths per minute
- d. 12 to 20 / 12 to 20 breaths per minute

Question 35: Your patient is an unresponsive 44 year old female who has a pulse but is not breathing. How should you proceed with CPR?

- a. Immediate chest compressions followed by two rescue breaths
- b. 2 quick rescue breaths and then provide 10-12 breaths per minute
- c. 2 quick rescue breaths and 12-20 breaths per minute
- d. Attach the AED and analyze, then begin CPR

Question 36: You arrive on scene with your partner to a restaurant where a choking was reported. You enter and find an unconscious cyanotic male on the floor. He is supine with BBQ sauce on his mouth and a napkin in his hand. What would you do for this patient?

- a. Verify apnea, two slow breaths with high flow O₂, and back thrusts
- b. Ask the bystanders what happened, verify no pulse, attach AED, tell everyone to stand back, and hit analyze
- c. Abdominal thrusts, finger sweep, and high flow O₂
- d. Head tilt, chin lift, verify apnea and begin Compression. Upon completion of the compressions, give two slow breaths looking for chest rise and fall.

Question 37: Your patient was in VF, an AED was attached and a shock was called for and administered. What is the next step in your treatment?

- a. Check his pulse and begin CPR if absent
- b. Begin CPR with two quick rescue breaths
- c. Do 5 cycles of CPR before checking pulse
- d. Check his pulse and deliver another shock if his pulse is absent

Question 38: Respirations in an adolescent would be considered normal at _____.

- a. 16 breaths per minute
- b. 24 breaths per minute
- c. 32 breaths per minute
- d. 35 breaths per minute

Question 39: A 27 year old man and his 4 year old nephew have been pulled from a river after being submerged for approximately 12 minutes. Rescue breathing for the man should include breaths at what rate? Rescue breathing for the child should include breaths at what rate?

- a. 1 breath every 5-6 seconds for the man / 1 breath every 3-5 seconds for the child
- b. 12-20 breaths per minute for the man / 10-12 breaths per minute for the child
- c. 10-12 breaths per minute for the man / 20-30 breaths per minute for all children
- d. 1 breath every 3-5 seconds for the man / 1 breath every 5-6 seconds for the child

Question 40: A respiration rate would be considered within normal limits for an adult at ____ per minute, for a 6-12 year old child at ____ per minute, and for an infant at ____ per minute.

- a. 22 - 32 - 42
- b. 16 - 25 - 40
- c. 20 - 40 - 60
- d. 10 - 20 - 40

Question 41: A 46-year-old woman was hiking in the woods near her home when she accidentally stepped into a hive of hornets and was stung multiple times. She contacted 911 via her cell phone and is going to rendezvous with you at her residence. When you arrive at the home you find her lying on the front lawn. After completing your scene size up, which would be the most appropriate treatment sequence according to the NREMT Patient Assessment/Management - Medical Skill Sheet?

- a. Form a general impression - Assist with epinephrine via auto injector - High flow O₂ - and transport
- b. Administer high flow O₂ via NRB - Get a set of vitals - and then do a SAMPLE
- c. Determine level of consciousness - Identify life threats - Assess airway - breathing - and circulation
- d. Assess ABC's - Make a transport decision and do a secondary assessment on the respiratory system. If she appears to be in anaphylactic shock assist her with her epinephrine auto injector.

Question 42: A 6 year old girl was found outside in her yard unconscious. She is breathing 6 breaths a minute and her pulse is 58 bpm with poor systematic perfusion. What should you do?

- a. Assist ventilations with high flow O₂ and transport rapidly
- b. Initiate chest compressions and assist ventilations with high flow O₂
- c. Use an epinephrine auto injector to increase her heart rate
- d. Transport with high flow O₂ and assist respirations if needed

Question 43: You are called to a daycare where a 3 year old boy is reportedly unconscious after choking on a plastic toy. You arrive to find the child lying supine on the floor with the caregiver attempting to give artificial ventilations. "I can't get any air in!", she says. With a quick inspection of the mouth, you can partially see a deeply lodged object near the glottis. What should you do now?

- a. Reach into the child's mouth with your fingers and attempt to sweep the object out of the mouth.
- b. Begin chest compressions in an attempt to dislodge the object. Check airway regularly.
- c. Begin abdominal compressions in an attempt to dislodge the object. Ventilate if possible.
- d. Turn the child over and give 5 quick backslaps with head slightly declined.

Question 44: Dispatch reports a jet ski collision on a local lake. The reporting party says that the two guys are in the water floating face down and one of their buddies just jumped off the boat to help them. When you arrive on scene the boat has just brought the two unconscious men to shore and CPR and rescue breathing are in progress. The first man has a pulse but is not breathing. The second man does not have a pulse and is apneic. What ventilation rate will you use for the first man? What about the second man?

- a. 30:2 compression to ventilation ratio for both men
- b. 30 compressions to 2 ventilations per minute for both men
- c. 12-20 ventilations per minute for the first man and 10-12 ventilations per minute for the second man
- d. 10-12 ventilations per minute for the first man and 6 ventilations per minute and 100 compressions for the

second man

Question 45: You are called to the scene of a possible drowning. On arrival you see a 6 year old boy lying supine on the ground. Your partner cannot find a pulse and you begin CPR with a compression depth of:

- a. 2 inches
- b. 2-3 inches
- c. At least 1/3 the diameter of the chest
- d. 1/3 to 1/2 the depth of the chest

Question 46: In 20 seconds of CPR you should deliver approximately how many chest compressions?

- a. 12 compressions
- b. 23 compressions
- c. 34 compressions
- d. 55 compressions

Question 47: You come upon a victim of asphyxial cardiac arrest. Which of the following is the correct order of action?

- a. Activate the emergency response system and then begin CPR
- b. Do CPR at a 15:2 rate for 5 minutes and then activate the emergency response system
- c. Do CPR for 5 cycles or approximately 2 minutes and then activate the emergency response system and retrieve the AED
- d. Retrieve the AED and analyze, then begin CPR

Question 48: If you have two or more rescuers doing CPR, how often should you rotate compressor roles according to AHA CPR Guidelines?

- a. Every minute
- b. Every 5 Cycles
- c. Every 5 minutes
- d. Every 2 cycles

Question 49: You and your partner are performing CPR on a 62 year old female who was found apneic and pulseless by neighbors. Your CPR will utilize:

- a. Chest compressions at 110 a minute with about 6 breaths a minute
- b. Compressions 2 inches deep with one breath every 3-5 seconds
- c. 10 to 12 breaths per minute with a tidal volume of 1200ml to 1500 ml
- d. None of the above are correct

Question 50: A report of a woman with an acute abdominal complaint comes in on the ambulance radio. You and your partner Lebomowitz arrive to find a 45-year-old woman holding her stomach. You perform a primary survey and administer oxygen via NRB as Lebomowitz begins history taking. According to the NREMT medical assessment skill sheet, what should you do next?

- a. Get a set of baseline vitals
- b. Assess breathing, pulse, and skin condition, then do a secondary survey
- c. Do a detailed physical examination and then repeat the initial assessment
- d. Do a secondary assessment focusing on her chief complaint

Question 51: You are dispatched to a home for a laceration. A 60 yr old male was chopping wood with a hatchet when he missed and hit his wrist. When you make patient contact, his wrist is still actively bleeding. Which of the following treatment sequences would be the MOST appropriate ?

- a. Elevate wounded extremity - Direct Pressure to wound - Apply tourniquet
- b. BSI - Apply pressure to arterial pressure point - Elevate wounded extremity - Apply tourniquet
- c. Direct pressure - tourniquet
- d. BSI - High flow O2 - Arterial pressure on pressure point - transport

Question 52: You and your partner Abner are performing CPR on a 22 year old man who was in a motorcycle accident. Your CPR will utilize:

- a. Chest compressions at 30 a minute with one breath every 10 seconds
- b. About 6 breaths per minute with a tidal volume enough to give adequate chest rise
- c. Compressions one third to one half the depth of the chest with one breath every 3-5 seconds
- d. 12 to 20 breaths per minute with a tidal volume of 800ml each breath

Question 53: CPR is in progress on an 80 year old man who has fallen from a ladder. He has no pulse and chest compressions are being initiated. Current AHA guidelines specify that this man should receive approximately how many compressions over a period of 2 minutes?

- a. 100 compressions
- b. 120 compressions
- c. 180 compressions
- d. 220 compressions

Question 54: You are performing CPR on an elderly male with no pulse. What number of chest compressions would be adequate over a 30 second period?

- a. 30:2
- b. 15:2
- c. 58
- d. 100

Question 55: You arrive on scene to a MCI vehicle accident involving multiple vehicles. Your triaged patient is a 4 year old boy who has multiple fractures and is pulseless. You and your partner begin CPR:

- a. At a rate of 100 compressions per minute with one breath every 5-6 seconds
- b. With 12 to 20 breaths per minute with a tidal volume of 800ml for each breath
- c. With chest compressions at a rate of 30:2 with one breath every 3-5 seconds
- d. At a ratio of 15:2 with a compression depth of one third the diameter of the chest

Question 56: You are called to the scene of a man down. Dispatch reports the man is pulseless and bystanders are doing CPR. According to the NREMT Cardiac Arrest Management/AED skill sheet, which of the following sequences is appropriate?

- a. Check for responsiveness, Assess for breathing, Check carotid pulse , put your gloves on
- b. Question the bystanders, direct them to stop CPR , check for pulse and then attach the AED, Begin chest compressions
- c. Turn on power to AED, open the patient's airway, insert an adjunct and then analyze the rhythm
- d. Complete one cycle of CPR, Attach the AED, Have everyone stand clear during rhythm check

Question 57: You and your partner are called to a swimming pool for a 5 year old who does not have a pulse and is not breathing. You begin CPR including compressions at what depth?

- a. 2 inches
- b. 1.5-3 inches
- c. At least 1/3 the diameter of the chest
- d. 1/2 to one third the depth of the chest

Question 58: You and your partner Juan arrive on scene to a possible drowning. Coming through the back gate of the house you see two men doing CPR on a child of 8 or 9 years of age. When you begin CPR, what rate and depth of compressions will you use?

- a. 15:2 / one third to one half the depth of the chest
- b. 15:2 / 1.5 to 2 inches
- c. 15:2 / one third the diameter of the chest
- d. 30:2 / enough to give adequate chest rise

Question 59: Proper use of an AED should include:

- a. Measuring from the corner of the mouth to the earlobe
- b. Moistening the pads to ensure electrical conductivity
- c. Establishing the patient does not have a pulse
- d. Three consecutive shocks

Question 60: You have been dispatched to an ATV accident involving the rider being thrown into a rocky embankment. You arrive to find a female patient with a GCS of 6. Her respirations are labored and hoarse and she has multiple superficial lacerations to both legs. You do a jaw thrust maneuver to open her airway, but her respirations do not improve. What would be the most appropriate course of action?

- a. Put in an oral or nasal airway and then suction
- b. Repeat the jaw thrust maneuver until the airway is patent
- c. Put a C-collar on her and move her to a backboard
- d. Do a head tilt chin lift maneuver

Question 61: How many compressions per minute would you give an adult patient who has no pulse?

- a. 80-100 compressions per minute
- b. 100-120 compressions per minute
- c. 60-80 compressions per minute
- d. 30-2 compressions per minute

Question 62: Dispatch has just called you to Frontier Lake where a man's boat has capsized. The update is the patient is likely suffering from hypothermia and is breathing very shallow. You and your partner Sean arrive to find a man and a woman doing CPR on an approximately 48 year old male. When you and Sean begin CPR, what rate and depth of compressions will you use?

- a. 30:2 / at least 2 inches
- b. 15:2 / 1.5 to 2 inches
- c. 30:15 / one third to one half the depth of the chest
- d. 15:2 / one third to one half the depth of the chest

Question 63: A call has come in for a possible drowning. You and your partner respond to a public swimming pool a few blocks from the station. A 9 year old boy apparently slipped while running, hit his head on the edge of the pool, and fell in. He has no pulse and he is not breathing. What would be your best choice of action?

- a. Apply a cervical collar and begin respirations and compressions at a 30:2 ratio. Deliver breaths with a BVM at 12-20 breaths per minute.
- b. Insert an oropharyngeal measured from the corner of his mouth to his earlobe and begin assisting ventilations at 15-30 breaths per minute.
- c. Take mechanical c-spine precautions and begin CPR delivering 5-6 breaths per minute while giving 100 compressions in that same time period.
- d. Take manual stabilization of the boy's head and neck while additional rescuers ventilate at about 13 breaths per minute and provide at least 100 compressions per minute.

Question 64: You arrive on scene at a single-car accident involving a moose. Your patient was driving about 50 MPH when she hit the moose. After completing your scene size up, to which of the following would you proceed?

- a. Baseline vitals and oxygen
- b. Detailed physical examination
- c. The patient's chief complaint

d. SAMPLE history with focused physical examination on c-spine

Question 65: In 20 seconds of CPR you should deliver approximately how many chest compressions?

- a. 11 compressions
- b. 22 compressions
- c. 33 compressions
- d. 36 compressions

Question 66: You and your partner Toby arrive at a motel in response to a 911 call for an unconscious female. You find the woman pulseless and while Toby hooks up the AED, you begin delivering compressions. How many compressions per minute would you give this woman?

- a. 60-80 compressions per minute
- b. 100-109 compressions per minute
- c. 150 compressions per minute
- d. 90-100 compressions per minute

Question 67: You and your partner Willy have just arrived at a restaurant where a man has fallen through a glass door. He has a laceration across his lower leg approximately 10 inches long and 1.5 inches deep. Which of the following treatment sequences would be the MOST appropriate?

- a. Put gloves on - Bandage wound - Pressure to arterial pressure point
- b. Apply pressure to the wound - Elevate the legs - Transport
- c. Locate and apply pressure to appropriate arterial pressure point - Elevate leg - Transport
- d. BSI - Treat patient for shock - Elevate leg

Question 68: You arrive at an apartment building where a man has been reported unconscious. You enter the room to find him lying supine in his bed with his wife at his side. Respirations are rapid and shallow at 24 breaths per minute and you are unable to get a response from him. His wife says he is a diabetic and that she just lanced his finger to measure his glucose when you arrived. What would be the best course of action?

- a. Give him a tube of glucose - Administer high flow O₂ via NRB, and transport
- b. High flow O₂ - Have the wife finish measuring the blood sugar - Transport
- c. Start positive pressure ventilations at 10-12 per minute - attach high flow O₂, and transport
- d. Administer high flow O₂ Assess circulation - Make a transport decision

Question 69: You are called to a local river where a rafting trip has turned bad. A family of 5 was dumped into the river after their raft capsized, only 3 of them made it to shore. As you arrive on scene, a woman and a young boy are brought up from a rescue raft. The search and rescue crew say the victims were under water about 15 minutes. The woman does not have a pulse, but the boy does. What will your ventilation rate be for the woman? What about the boy?

- a. 10-12 ventilations per minute for the woman / 12-20 ventilations per minute for the boy
- b. 6 ventilations per minute for the woman / 12-20 ventilations for the boy
- c. 12-20 ventilations per minute for the woman / 15-30 ventilations per minute for the boy
- d. 30 compressions to 2 ventilations per minute

Question 70: You and your partner Abraham arrive on scene to a one-car collision with a cow. Your patient was driving about 45 MPH around a corner when the cow leaped from the roadside in front of the car. After doing your initial scene size up, which of the following would you proceed to?

- a. Baseline vitals
- b. Get a general impression of the patient
- c. Perform a detailed physical examination
- d. C spine and SAMPLE history with focused physical examination

Question 71: What would you do if a newborn infant has a heart rate lower than 100 beats a minute?

- a. Ventilate at 40-60 breaths a minute
- b. Begin chest compressions
- c. Ventilate at 100 respirations a minute
- d. None of the above

Question 72: CPR is in progress on an 35 year old woman who has fallen down an escalator. She has no pulse and chest compressions have been started. Current AHA guidelines specify that this woman should receive approximately how many compressions over a period of 3 minutes?

- a. 290 compressions
- b. 306 compressions
- c. 110 compressions
- d. 400 compressions

Question 73: You are off duty at a college football game when you see a man at the concession counter fall to the ground. A doctor standing in line behind the man begins to assess and yells, "Call 911, he doesn't have a pulse!" You scan the area for an AED and see nothing. What should you do?

- a. Call 911 and begin CPR
- b. Begin CPR and ask a bystander to locate an AED
- c. Ask to see the doctor's credentials
- d. Call 911 and ask them to bring an AED

Question 74: AHA CPR guidelines state that with a patient who has a shockable rhythm you should_____.

- a. Deliver 1 shock followed by analysis
- b. Deliver 3 stacked shocks
- c. Deliver 1 shock followed by CPR
- d. Deliver 3 shocks followed by CPR

Question 75: According to the current AHA Guidelines how many milliliters of tidal volume should you deliver via BVM to an adult patient who is apneic?

- a. 80ml-100ml
- b. 100ml-500ml
- c. 500ml-1000ml
- d. Just enough to give adequate chest rise

Question 76: You and your partner Ashley arrive at a house where dispatch reports a 911 call was made. Nobody was on the phone to report any emergency, and attempts at calling back have resulted in a busy signal. A frantic woman exits the house screaming about her daughter not breathing. You enter the home to find a 9 year old girl lying supine on the kitchen floor very cyanotic. After 2 rescue breaths, each given over a period of _____, you begin ventilations with a BVM at a rate of _____ and a tidal volume of _____.

- a. 1-2 seconds / 10-12 breaths per minute / 700ml-1000ml per breath
- b. 2 seconds / 12-20 breaths per minute / 800ml per breath
- c. 1 second / 10-12 breaths per minute / enough air to cause adequate chest rise
- d. 1 second / 12-20 breaths per minute / enough air to cause adequate chest rise

Question 77: You and your partner Mani arrive on scene to a call of a man down. An approximately 20 year old male is pulseless. While Mani hooks up the AED, you begin delivering compressions. How many compressions per minute would you give this man?

- a. 60-80 compressions per minute
- b. 60-90 compressions per minute
- c. 80-100 compressions per minute
- d. 100-110 compressions per minute

Question 78: You and your partner Maria have just started CPR on a 23 year old MVA victim. According to AHA CPR guidelines how often should you change compressor roles?

- a. Every 1 minute
- b. Every 2 minutes
- c. Every 5 minutes
- d. Every 10 minutes

Question 79: You arrive at a restaurant to a call of a woman choking. You find her sitting in a chair, very pale, and sweating. She states in a very hush tone that she has a piece of steak caught in her throat. You should immediately?

- a. Give her the Heimlich and pop the chunk of steak out
- b. Tell her she should not take such big bites
- c. Wait until she passes out and then give her abdominal compressions on the ground
- d. Encourage her to cough as it is likely high enough in the airway to expel it

Question 80: You have just arrived at the scene to find a 27-year-old female complaining of anxiety and breathing difficulties. Which of the following questions would be most appropriate to ask first?

- a. What is your name?
- b. What day is today?
- c. Do you have a history of panic attacks?
- d. How long have you been having trouble breathing?

Question 81: You arrive on scene to find another EMS crew doing CPR on a 60 year old woman. What is the best indicator that ventilations are being performed correctly.

- a. The patient's skin color is pink
- b. You can feel a pulse in the carotid artery
- c. There is adequate chest rise and fall
- d. The BVM is fully compressed

Question 82: You respond with your partner Lucy to a restaurant where a choking was reported. You enter and find an unconscious cyanotic female on the floor. She is supine with teriyaki sauce around her mouth. Bystanders report that she started choking, the Heimlich maneuver was performed, then she went unconscious. The lady was then lowered to the floor. What would you do for this patient?

- a. Abdominal thrusts, finger sweep, and BVM
- b. Ask other bystanders what happened, verify no pulse, attach AED, tell everyone to stand back, and hit analyze
- c. Verify apnea, three slow breaths with high flow O₂, and back thrusts
- d. Head tilt, chin lift, verify apnea, two slow breaths, compressions, and attempt to visualize obstruction using a laryngoscope and Magill forceps

Question 83: You and your partner Ramone have arrived at the scene of a house fire where 3 victims were pulled a safe distance from the home and are being attended by first responders. Your initial impression is of two women and a child lying unconscious on the ground. None appears to have been burned and their clothing is intact. None of the patients is breathing, but the second woman and the child do have a palpable pulse. At what rate would each of these patients be ventilated?

- a. Woman one would get 6 breaths per minute. Woman two would get 12 to 20 breaths per minute and the child would get 15 to 30 breaths per minute
- b. Woman one would get 12 breaths over 2 minutes. Woman two would get 20 to 24 breaths over 2 minutes and the child would get 24 to 40 breaths over 2 minutes
- c. Woman one would get 10 to 12 breaths per minute. Woman two would get 12 to 20 breaths per minute and the child would get 12 to 20 breaths per minute
- d. Woman one would get 12 to 20 breaths per minute. Woman two would get 12 to 20 breaths per minute and the child would get 15 to 30 breaths per minute

Question 84: Your patient is in cardiac arrest and compressions are being performed at _____ per minute. An ET tube has been inserted and ventilations via BVM have been initiated at _____. You set an IV in the _____ which is the preferred cannulation site of a patient receiving compressions.

- a. 100 / 8-10 / AC
- b. 30:2 / 10-12 / Jugular
- c. 90 / 12-20 / Vena Cava
- d. 100 / 12-20 / Femoral

Question 85: AHA CPR/ AED Guidelines advise doing what after the first shock?

- a. Resuming CPR for 5 cycles approximately 2 minutes
- b. Analyzing again and potentially giving up to 2 more shocks
- c. Checking the pulse and rhythm of the patient
- d. None of the above are appropriate

Question 86: You are transporting a 27-year-old female who was the driver in a single car MVA on a remote logging road. She is on oxygen at 12LPM and had an actively bleeding laceration on her scalp that has been controlled with pressure. Her pulse is 100 with respirations of 12 a minute and her blood pressure is 110/70. You are still 30 to 40 minutes from the hospital. According to the NREMT trauma management skill sheet, which of the following answer choices contains the best treatment for this patient given the circumstances.

- a. Put a C-collar on her and re-assess vitals every 15 minutes en route
- b. Perform a secondary assessment of the laceration to make sure bleeding has stopped
- c. Assess airway, breathing, and circulation every 5 minutes until arrival at the hospital
- d. Reassess and treat any conditions that present

Question 87: You are on call at a volunteer ambulance unit in a very remote part of the state. You and a driver with little to no medical training have just been dispatched to a call of man down. You arrive at a farm house and find an elderly man lying in the driveway. His wife says he collapsed while walking to the mailbox. CPR for this patient should include?

- a. Compression to ventilation ratio of 30:2. Compressions just below the nipple line
- b. Compression to ventilation ratio of 15:2. Compressions just above the nipple line
- c. Compression to ventilation ratio of 30:2. Compressions at the nipple line
- d. Compression to ventilation ratio of 30:2. Compressions over the tip of the xiphoid process

Question 88: You and your partner Chrysta have been called to Motel Schwartz where a man was reported bleeding from his leg. You arrive to find that the man has cut his own legs with a box knife several times. He is bleeding from at least 6 deep lacerations on his legs. According to the NREMT Bleeding Control/Shock Management Skill Sheet, which of the following would be the most appropriate treatment for this man?

- a. Apply direct pressure to the wounds, elevate the wounds, Apply tourniquet, Apply arterial pressure
- b. Elevate the extremity, Bandage the wound, Assess CMS, Pressure to arterial pressure point, and withhold O2 unless requested
- c. BSI, high flow O2 via NRB, Do a focused physical exam of the lacerations, and get the bleeding controlled on scene prior to transport

d. Apply direct pressure to the wounds, Apply tourniquet, Treat for shock

Question 89: You are dispatched to a possible cardiac arrest. Your time of arrival is 10 minutes from the time of the call. You and your partner Rob enter the residence to find a man in his 50's lying supine on the living room floor. His wife says that he "just collapsed" while eating dinner. Which of the following treatment choices is not appropriate according to AHA Guidelines?

- a. Immediately analyze his rhythm and defibrillate with a monophasic manual defibrillator at 360 J if necessary
- b. Do a visual check of his mouth and then begin CPR with 2 quick ventilations delivered over 1 second
- c. Use a biphasic defibrillator to analyze and shock the patient at 200 J if you do not know the type of biphasic waveform in use.
- d. Do 5 cycles or 2 minutes of CPR before attempting defibrillation

Question 90: You and your partner Naven have just arrived at a home where a woman in her 70's was reported to have passed out. You enter the residence to find a man in his 20's performing rescue breathing on the elderly woman who is supine on the floor. Naven attaches the AED and advises the man to move away. He pushes the analyze button and no shock is advised. The two of you begin CPR, delivering approximately_____. After 1 cycle of CPR an elderly gentleman enters the room and shows you a valid looking DNR signed by the patient and her doctor. What should you do?_____

- a. 12 breaths and 200 compressions over 2 minutes / Call medical control and ask for guidance
- b. 6 breaths and 100 compressions over 1 minute / Respect the DNR
- c. 12 to 20 breaths and 100 compressions over 1 minute / Respect the DNR
- d. 6 breaths and 100 compressions per minute / Contact the signing doctor to verify authenticity

Question 91: You have been called to a home where a 1-year-old girl is in respiratory distress, possible apnea. The caregiver called 911 after finding the girl on the floor in front of the T.V. She does not know if the child is breathing or not. Which of the following choices below contains the most accurate facts related to this call?

- a. Children have a large tongue that takes up more of the oropharynx and can cause an airway obstruction. Proper administration of CPR should include about an inch of padding under the child's shoulders.
- b. Children may have anterior displacement of the tongue which can cause an airway obstruction. CPR should include delicate compressions to avoid rib fractures.
- c. Children have ridged tracheal cartilage and a short epiglottis that can easily block the airway. During CPR the neck should be slightly hyperextended to account for this difference.
- d. Children have smaller airways that are often blocked by toys and rarely occluded with mucus or swelling. If you suspect a foreign body airway obstruction, try to visually locate the object and remove it if possible.

Question 92: You are performing CPR on a 58 y/o patient when you notice your partner is not performing compressions adequately. He is performing compressions at the rate of:

- a. 100 compressions a minute
- b. 110 compressions a minute
- c. 120 compressions a minute
- d. 160 compressions a minute

Question 93: You are dispatched to a 57-year-old man who was injured by hitting a tree with his snowmobile. His wife called 911 and says the man is conscious, breathing, and cussing a blue streak. You arrive to find the man in severe pain with an obvious fracture to the femur. According to the NREMT PATIENT ASSESSMENT/MANAGEMENT - TRAUMA Skill Sheet your first concern is:

- a. Obtaining a set of baseline vital signs
- b. Determining if the patient has an infectious disease
- c. Identifying if the patient has any other life threatening injuries
- d. Requesting another EMS unit to respond with a sled for transport

Question 94: You are performing CPR on a 61 year old woman who was found unconscious with no pulse. Approximately how many chest compressions will you give her over a period of 30 seconds?

- a. 35
- b. 40
- c. 45
- d. 55

Question 95: AHA Guidelines specify that rescue breaths should be delivered over a period of _____.

- a. 1 second
- b. 2 seconds
- c. 3 seconds
- d. 5 seconds, 2 seconds in and 3 seconds out

Question 96: Dispatch has just called you to Medical Park where a man has fallen out of his wheel chair. You and your partner Sheila arrive to find two bystanders doing CPR on an approximately 60 y/o male. When you begin CPR, what rate and depth of compressions will you use?

- a. 30:2 / one third to one half the depth of the chest
- b. 15:2 / 2 inches
- c. 15:2 / one third to one half the depth of the chest
- d. 30:2 / 2 inches

Question 97: You and your partner are at lunch when you are called to a scene of a 3 yr old who does not have a pulse and is not breathing. You and your partner discuss what depth of compression should be given and you agree that it is?

- a. 1-2 inches
- b. 1.5-2.5 inches
- c. At least 1/3rd the depth of the chest
- d. No compressions, it's a child

Question 98: You are assessing a 34 yr old white male who is crying and complaining of a very painful upper left quadrant. He has a history of pancreatitis and is a diabetic. Which of the following is the most appropriate action?

- a. Put him on oxygen via NRB at 15LPM and transport him to the nearest hospital
- b. Do a SAMPLE history, get his vitals and then do a secondary assessment on the effected area
- c. Put him in a left lateral recumbent position and transport immediately
- d. Do a secondary assessment of the ULQ palpating and auscultating for bowel sounds

Question 99: You are called to a structure that has collapsed. Two patients have been pulled from the debris, triaged, and brought to the treatment area where you are in charge of 3 other EMTs. Patient #1 is a 7 year old female. Strong pulse of 90 and respirations of approximately 12 a minute. Breath depth increases, then decreases with periods of apnea. She has many abrasions across her face and neck. Patient #2 is a 9 year old boy who is not breathing and has no pulse. Which of the following answers contains an appropriate treatment for each patient?

- a. Patient #1, with aid from 1 EMT, will assist ventilations via Bag Valve Mask and 100% O₂ at 15 LPM. The EMT will be directed to deliver approximately 12-20 breaths per minute. Patient #2, with the help of 2 EMTs, will deliver CPR at a ratio of 30:2 Compressions to ventilations while the third EMT holds C-spine.
- b. Patient #1, with help from two EMTs, will get high flow O₂ at 15 Liters Per Minute via Non Rebreather Mask. If an ET Tube is inserted, then a ventilation rate of 8-10 breaths should be used. Without an advanced airway, a ventilation rate of 12-20 will be used. Patient #2, with 2 EMTs, will get CPR performed at a ratio of 30:2 delivering about 90-100 compressions for every 10-12 breaths. If an advanced airway is in place, then a rate of 15 compressions to 2 ventilations will be used.
- c. Patient #1, with help from 2 EMTs, will give artificial respirations via BVM at a rate of 10-12 ventilations per minute. Each breath should be delivered over a period of 1 second with enough volume to make the patient's chest rise. Patient #2 should have an AED attached while CPR is being performed at a rate of 15-30 breaths per minute. Once the AED is attached, the patient's rhythm should be analyzed and a shock anticipated.
- d. Patient #1, with aid from 2 EMTs, will get assisted ventilations via Bag valve mask and 100% O₂ at 15 LPM . If a simple oral or nasal airway is in place, then ventilations will be at 12-20 per minute. If an endotracheal tube (ET) is in place, a ventilation rate of about 8-10 breaths per minute or 1 breath every 6-8 seconds will be used. Patient #2, with 2 EMTs, will give at least 100 chest compressions and 5-6 breaths per minute via BVM with 100% O₂ at 15 LPM. A ratio of 15 compressions to 2 ventilations should be used while a simple oral airway is in place.

Question 100: When assessing the breathing of an infant or child, you should look for _____?

- a. Normal breathing
- b. Adequate breathing
- c. Presence or absence of breathing
- d. Inadequate breathing

Answers

Question 1: Which of the following diastolic pressures would be within normal range for a healthy adult?

a. 55 mm Hg

Rationale: Normal ranges vary based on source. The AHA says "below 80". EMS texts print ranges from 50-90 to 60-89. The NES says the average blood pressure is 120/80. This question is a case of "Choose the best answer". All of the other ranges are outside ANY published data.

Question 2: You are called to a scene of a 3-year-old who is not breathing and is pulseless. Your CPR should include compressions at what depth?

c. At least 1/3rd the depth of the chest

Rationale: 2010 AHA guidelines stipulate that at least 1/3rd of the anterior posterior diameter of the chest should be compressed while performing CPR on a child.

Question 3: You and your partner Genovese suspect a significant MOI to a patient who has been in a high-speed front end collision. In what order should you do your assessment?

a. Primary survey - SAMPLE history - Secondary assessment

Rationale: According to the newest NREMT trauma assessment skill sheet, a primary survey should be followed by history taking and then a secondary assessment.

Question 4: You and your partner Ryan arrive on scene to find 2 bystanders doing CPR on an elderly man. While Ryan hooks up the AED, you question the two bystanders and begin assisting with CPR. They say they found him like this just before the ambulance arrived. After approximately 2 minutes of CPR, an analysis is run on the AED and a shock is delivered. Your next action should be?

c. Do 2 minutes of CPR beginning with chest compressions

Rationale: AHA Guidelines for CPR and defibrillation specify that after the initiation of the first shock, 5 cycles, or approximately 2 minutes of CPR should be done.

Question 5: You are doing CPR by yourself on a 77 year old man who suddenly went into cardiac arrest and stopped breathing. The most effective way to check the adequacy of your ventilations is..?

d. Looking for the chest to rise and fall

Rationale: Watching rise and fall of the chest is the most reliable way of verifying the adequacy of ventilations in one or two-person CPR.

Question 6: You are called to a neighborhood pool where a 5 year old girl was found floating unconscious. She is cyanotic and has no muscle tone. Your partner Greg does not find a pulse and the child is not breathing. Your CPR should include a compression to ventilation ratio of _____ and each compression should be at a depth of _____.

b. 15:2 / one third the diameter of the chest

Rationale: AHA CPR Guidelines specify that 2 person infant/child CPR by health care professionals should be done at a 15:2 ratio. Each chest compression should be 1/3 the anterior-posterior diameter of the chest.

Question 7: You and your partner find an adult male pulseless and apneic. At what rate should your CPR compressions be delivered?

b. 109 compressions per minute

Rationale: 109 compressions per minute would satisfy AHA CPR requirements which states administering AT LEAST 100 compressions per minute.

Question 8: You are ventilating an adult patient who is apneic. According to the AHA, approximately what volume of air should you deliver during each ventilation?

d. None of the above

Rationale: The AHA guidelines now recommend that a ventilation be enough to "give adequate chest rise". They further recommended that manikins be configured to show that chest rise at or between 500ml to 600ml. Changes were made because "It is impossible to estimate the tidal volume of a ventilation", AHA.

Question 9: A two year old boy was pulled from a house fire and handed to you. His weak shallow breathing necessitates assisted ventilations. You put him on high flow oxygen assisted with a BVM at approximately 18 breaths per minute. After 10 minutes of transport, the child's pulse is 50 bpm. What should you do next?

a. Begin chest compressions

Rationale: A child that is not perfusing well despite assisted ventilations with high flow oxygen and who has a pulse rate below 60 beats per minute, should have chest compressions initiated by the rescuer.

Question 10: According to the 2010 AHA guidelines, how many shocks should be delivered prior to resuming CPR?

a. 1 shock

Rationale: According to the 2010 AHA guidelines, if the single shock does not convert the rhythm, cerebral and coronary perfusion must be initiated.

Question 11: You and your partner are performing CPR on a 72 year old female who suddenly went unconscious and stopped breathing during a hospital transfer. Your CPR will utilize:

d. None of the above are correct

Rationale: None of these are correct rates according to AHA guidelines. CPR is performed at a 30:2 ratio, with at least 100 compressions a minute. This means that about 6 breaths are given per minute.

Question 12: Your patient is a 33 year old female who fell off the back of a motorcycle going approximately 20 MPH. Her respirations are irregular at 8 a minute. An OPA has been inserted and ventilations are being assisted with a BVM and 100% O₂ at a rate and tidal volume of _____. C-Spine precautions have been taken and she is packaged and moved to the ambulance where she stops breathing and there is no palpable pulse. CPR is started and the lead paramedic does a rapid sequence intubation. The BVM is attached to the ET tube and ventilations are restarted at a rate of _____.

a. 10 to 12 breaths per minute. Tidal volume of just enough air to give adequate chest rise. / 8 to 10 breaths per minute without pauses in compressions.

Rationale: With an OPA in, this woman should be receiving assisted ventilations at a rate of 10-12 breaths per minute, according to the newest AHA Guidelines, with a tidal volume of just enough air to give adequate chest rise. Milliliters of volume were found to be difficult if not impossible to estimate while delivering rescue breaths. Once the CPR starts with the advanced airway in place, the rate changes to 8 to 10 breaths per minute WITHOUT pauses in compressions.

Question 13: You arrive on scene of a shooting where law enforcement has secured the scene. Which of the following answers contain the most accurate sequence of actions according to the NREMT trauma management skill sheet?

a. Determine the number of patients - Consider C-spine stabilization - Assess the patient's airway - Get a set of vital signs

Rationale: The only answer in the correct sequence is the first. All others have 2 steps out of order OR are not even on the trauma skill sheet. Be sure to practice these sheets DIRECTLY from the NREMT as variations and or outdated versions are often printed in text books. The NREMT has recently updated many of their skills sheets so make sure you have the most current version directly from https://www.nremt.org/nremt/about/exam_coord_man.asp

Question 14: Your patient is a 10 year old girl who was pulled unconscious from a pool. Lifeguards have been performing assisted ventilations on her with high flow O₂ for about 15 minutes. She is not breathing on her own or perfusing adequately and has a pulse rate of 55 bpm. What would be the proper course of action?

c. Initiate chest compressions at a minimum of 100 per minute

Rationale: The newest AHA guidelines specify that a child who is not perfusing adequately, despite respiratory assistance, should receive chest compressions at a minimum of 100 per minute.

Question 15: You are providing life support and performing CPR on a 53 year old male who had an unwitnessed collapse. The defibrillator was attached, an analysis was performed, and a shock was delivered. What should you do next?

b. Begin CPR with chest compressions

Rationale: AHA Guidelines for CPR and defibrillation specify that after the initiation of the first shock, 5 cycles of CPR should be done beginning with chest compressions.

Question 16: In 20 seconds of CPR you should deliver approximately how many chest compressions?

c. 35 compressions

Rationale: You want to deliver AT LEAST 100 compressions per minute.

Question 17: Your patient is the victim of a moderate speed MVA. The patient is unconscious and not breathing. You attempt to open their airway with a jaw thrust maneuver and are unsuccessful. What should you do next?

a. Use the head tilt chin lift maneuver

Rationale: AHA Guidelines state that after an unsuccessful attempt at opening the patient's airway with the jaw thrust maneuver, you should use the head tilt chin lift maneuver. Opening the airway is priority.

Question 18: You and your partner Nhabib have been dispatched to a home for an unknown illness of a 6-year-old girl. Of the following choices of vital signs, which would you hope to find in this patient?

d. 24 breaths per minute, pulse 120, systolic BP 98

Rationale: The only answer that is within range of the NEMSES is: 24 breaths per minute, pulse 120, systolic BP 98.

Question 19: Dispatch has just called you to Lost Lake where a man has fallen out of his boat and is likely suffering from hypothermia. You and your partner Sheila arrive to find a man and a woman doing CPR on a 60ish male. When you and Sheila begin CPR, what rate and depth of compressions will you use?

d. 30:2 / at least 2 inches

Rationale: AHA CPR Guidelines specify that for adult CPR a 30:2 ratio of compressions to breaths is to be used. Additionally, the depth of compressions should be at least 2 inches. This question is also used to demonstrate that often times, the call you receive from dispatch is not the call at which you arrive. Be prepared for anything.

Question 20: Which of the following patients is bradypnic? Patient 1 is a 19-year-old male with a respiratory rate of 9 breaths per minute, patient 2 is a 6 month old boy with a rate of 40, patient 3 is an 11-year-old girl with a respiratory rate of 20, and patient 4 is a 51-year-old female with a respiratory rate of 20.

a. Patient 1

Rationale: According to NES guidelines normal adult respiratory rates are 16-20, infants should be 40-60 at birth but move to 30-40 after a few minutes, and school aged children have an average range of 20-30.

Question 21: Dispatch has called you and your partner Diego to the scene of a multiple vehicle collision. Your triaged patient is a 6 year old boy who has facial lacerations and is pulseless. You and your partner begin CPR:

b. At a ratio of 15:2 with a compression depth of one third the depth of the chest

Rationale: AHA CPR Guidelines say that 2 person CPR by healthcare professionals on a child is to be done at a 15:2 ratio with one breath every 3-5 seconds. Compressions are at least 100 per minute for everyone.

Question 22: You are called to a neighborhood pool where a 5 year old girl was found floating unconscious. She is cyanotic and has no muscle tone. Your partner Greg does not find a pulse and the child is not breathing. Your CPR should include a compression to ventilation ratio of _____ and each compression should be at a depth of _____.

b. 15:2 / one third of the anterior-posterior diameter of the chest

Rationale: 2010 AHA CPR Guidelines specify that 2 person CPR by health care professionals should be done at a 15:2 ratio. Each chest compression should be 1/3 of the anterior-posterior diameter of the chest. These numbers are argued by more EMT AND Paramedic candidates than any other question type we have. Please refer to your 2010 AHA CPR for Healthcare Provider guidelines.

Question 23: You and your partner Bob are just pulling up to a call for a man down with CPR in progress. Dispatch has told you that the man has an extensive cardiac history and had just finished golfing with friends when he collapsed in the parking lot. According to the AHA which of the sequences is most correct?

c. BSI, Check pulse, Begin compressions, Open airway

Rationale: 2010 guidelines use CAB- Chest Compressions, Airway, and Breathing. 2005 guidelines used ABC. This is the biggest change in the new guidelines. 2010 guidelines recommend to immediately begin compressions rather than opening the patient's airway and beginning ventilations as in the 2005 guidelines. Rescuers should recognize agonal gasps/ineffective breathing, and unresponsiveness as signs of cardiac arrest, but begin CPR with compressions. An AED should be used as soon as possible when the rescuer has witnessed the arrest.

Question 24: You and your partner Naven have just arrived at a home where a woman in her 70's was reported to have passed out. You enter the residence to find a man in his 20's performing rescue breathing on the elderly woman who is supine on the floor. Naven attaches the AED and advises the man to move away. He pushes the analyze button and no shock is advised. The two of you begin CPR, delivering approximately _____. After 1 cycle of CPR an elderly gentleman enters the room and shows you a valid looking DNR signed by the patient and her doctor. What should you do? _____

b. 6 breaths and 110 compressions over 1 minute / Respect the DNR

Rationale: AHA Guidelines specify that a 30:2 compression to ventilation ratio be used during CPR on this patient. The ratio would yield approximately 6 breaths per minute and at least 110 compressions. On the second part of the question: If someone shows you a valid DNR you should respect it and discontinue resuscitation.

Question 25: You and your partner Juan arrive on scene to a possible drowning. Coming through the back gate of the house you see two men doing CPR on a child of 8 or 9 years of age. When you and Juan begin CPR, what rate and depth of compressions will you use?

c. 15:2 / at least one third the depth of the chest

Rationale: AHA CPR Guidelines specify that for 2 person (healthcare provider) CPR involving a child, the

15:2 ratio is used. Depth of compressions is now to be at least one third of the anterior-posterior diameter of the chest.

Question 26: You arrive on scene with your partner Joe to find an 7 year old boy unconscious after being dragged from the water. He is not breathing and has no pulse. CPR in this case should include_____.

b. 15:2 compression to ventilation ratio

Rationale: AHA CPR Guidelines specify that for two person CPR on a child you should use a 15:2 ratio. It would be 30:2 if you were alone and did not have your partner Joe.

Question 27: Your patient is a 61 year old male who has fallen from a step ladder while hanging Christmas lights. He fell approximately 5 feet onto a deck railing and has a contusion on the left side of his neck and head. He is not breathing. Suspecting a possible c-spine injury you attempt to open his airway with the jaw thrust maneuver, but are not successful. How will you next try to open his airway?

c. Use the head tilt chin lift maneuver

Rationale: AHA Guidelines state that after an unsuccessful attempt at opening the patient's airway with the jaw thrust maneuver, you should use the head tilt chin lift maneuver. Opening the airway is priority.

Question 28: You and your partner Bob are called to the scene of a man down. The report said the man has no pulse and that family members are doing CPR. Upon arriving at the scene what 3 things are you going to do first?

d. Attach the AED, tell everyone to stand back, and hit the analyze button

Rationale: Your gloves should be on prior to coming in contact with the patient. You would attach an AED and shock if indicated, according to AHA Guidelines.

Question 29: Your patient is an 8 year old girl who fell from a swing and hit her head. She has a pulse but is not breathing. Your CPR should include what?

a. Breaths at a rate of 12-20

Rationale: AHA Guidelines specify that for all children, a rescue breath rate of 12-20 is to be used.

Question 30: You are walking through a grocery store when you see a group of people crowded around someone on the floor. You walk over and find a 48 y/o female pulseless and apneic. What rate and depth of compressions will you use?

a. 30:2 / at least 2 inches

Rationale: AHA guidelines specify that for adult CPR a 30:2 ratio of compressions to breaths is to be used. Additionally, the depth of compressions should be at least 2 inches.

Question 31: Chest compressions on a newborn that is not breathing adequately should be done at what depth?

b. about 1/3 to 1/2 the depth of the chest

Rationale: About 1/3 to 1/2 the depth of the chest with both thumbs. Hands should be wrapped around the thorax.

Question 32: You and your partner Gwen are called to the scene of an unknown injury accident involving a 50ish male patient. En route dispatch again radios you and reports that the man does not have a pulse and family members are doing CPR. When you arrive on scene a bystander tells you that the patient was fine and then just dropped like a rock. According to AHA AED Guidelines with CPR in progress, which of the following answers contains the most appropriate action for you to take?

a. Attach the AED, tell everyone to stand back, and analyze the man's rhythm

Rationale: If CPR is being performed on a patient with a sudden collapse, then AHA guidelines say to hook up the AED and analyze the patient's rhythm.

Question 33: You and your partner arrive at the home of a 59 year old male with a history of acute pulmonary edema. The patient is conscious and breathing at a rate of 28 breaths/min. Which treatment is best indicated?

d. use a Continuous Positive Airway Pressure (CPAP) device.

Rationale: Research is showing that CPAP has better results with fewer problems than the more traditional methods used in the past. While this device may not be in use in many parts of the country yet, it is now included in the National EMS Education Standards as a recommended treatment at the EMT level.

Question 34: Dispatch has contacted your unit in response to a 911 call from a person at a nearby lake. The reporting party says a boat ran ashore throwing several people into a wooded area. You and your partner Zeek arrive to find 3 people with minor cuts and lacerations doing CPR on a woman in her 30's. They tell you that the patient was thrown into some trees when the boat hit ground. Zeek takes a quick pulse check and does not find a carotid pulse. The two of you begin CPR. You should deliver approximately _____ per minute via BVM as you load the patient into the ambulance. During the 30 minute transport, a simple oral adjunct is inserted and an additional pulse check reveals that the woman now has a good palpable pulse. At what rate should you now ventilate this patient? _____

a. 6 breaths / 10 to 12 breaths per minute

Rationale: According to the AHA CPR and rescue breathing guidelines, the woman should have CPR performed on her at a 30:2 compression to ventilation ratio. This ratio should yield approximately 6 breaths over a period of one minute. Once the woman has a pulse, the ventilation rate would change to the rescue breathing rate of 10 to 12 ventilations per minute.

Question 35: Your patient is an unresponsive 44 year old female who has a pulse but is not breathing. How should you proceed with CPR?

b. 2 quick rescue breaths and then provide 10-12 breaths per minute

Rationale: AHA guidelines state that If she has a pulse, you only want to provide ventilatory support with 2 rescue breaths and 10-12 breaths per minute.

Question 36: You arrive on scene with your partner to a restaurant where a choking was reported. You enter and find an unconscious cyanotic male on the floor. He is supine with BBQ sauce on his mouth and a napkin in his hand. What would you do for this patient?

d. Head tilt, chin lift, verify apnea and begin Compression. Upon completion of the compressions, give two slow breaths looking for chest rise and fall.

Rationale: Open their airway and check to see if they are breathing, if not, begin compressions first. After completing the initial set of compressions, give two slow breaths looking for chest rise and fall. Continue this sequence until the object has been removed.

Question 37: Your patient was in VF, an AED was attached and a shock was called for and administered. What is the next step in your treatment?

c. Do 5 cycles of CPR before checking pulse

Rationale: AHA Guidelines for CPR and defibrillation specify that after the initiation of the first shock, 5 cycles of CPR should be done beginning with chest compressions.

Question 38: Respirations in an adolescent would be considered normal at _____.

a. 16 breaths per minute

Rationale: According to the NES (National Education Standards) adolescence (13-18 years) begins at the onset of puberty until adulthood. The respiratory rate for this age group is 12-20 per minute.

Question 39: A 27 year old man and his 4 year old nephew have been pulled from a river after being submerged for approximately 12 minutes. Rescue breathing for the man should include breaths at what rate? Rescue breathing for the child should include breaths at what rate?

a. 1 breath every 5-6 seconds for the man / 1 breath every 3-5 seconds for the child

Rationale: AHA CPR Guidelines specify that adults should get 10-12 breaths per minute (one breath every 5-6 seconds). Children should get between 12-20 breaths per minute (one breath every 3-5 seconds). Old guidelines said 20 bpm for all infants and children. The new wider range is to allow the rescuer to tailor rescue breathing to the needs of the patient.

Question 40: A respiration rate would be considered within normal limits for an adult at ____ per minute, for a 6-12 year old child at ____ per minute, and for an infant at ____ per minute.

b. 16 - 25 - 40

Rationale: According to the NES, normal adult respiratory rates are from 16-20, school age children (6-12) are 20-30, and infants are initially 40-60 and then drop to 30-40 after the first few minutes. Note: Respiratory rates for late adulthood, 61+, is dependent on the patient's physical and health status.

Question 41: A 46-year-old woman was hiking in the woods near her home when she accidentally stepped into a hive of hornets and was stung multiple times. She contacted 911 via her cell phone and is going to rendezvous with you at her residence. When you arrive at the home you find her lying on the front lawn. After completing your scene size up, which would be the most appropriate treatment sequence according to the NREMT Patient Assessment/Management - Medical Skill Sheet?

c. Determine level of consciousness - Identify life threats - Assess airway - breathing - and circulation

Rationale: On the first answer, you do not know what is wrong with this woman so you cannot assist her with epi after just a general impression. On the second answer, Giving O2 sounds like a good idea, but you missed the first three steps of the primary survey AND got vitals BEFORE doing a SAMPLE. On the fourth answer the first 3 steps of the primary survey were missed, and doing a secondary assessment is incorrect. Additionally, the injection of epi would have been administered during the ABC's if she were in anaphylaxis.

Question 42: A 6 year old girl was found outside in her yard unconscious. She is breathing 6 breaths a minute and her pulse is 58 bpm with poor systemic perfusion. What should you do?

b. Initiate chest compressions and assist ventilations with high flow O2

Rationale: AHA Guidelines for BLS include compressions for children with a pulse rate of less than 60 bpm who are perfusing poorly. Symptomatic bradycardia is a common terminal rhythm in infants and children. Don't wait for pulseless arrest to begin compressions.

Question 43: You are called to a daycare where a 3 year old boy is reportedly unconscious after choking on a plastic toy. You arrive to find the child lying supine on the floor with the caregiver attempting to give artificial ventilations. "I can't get any air in!", she says. With a quick inspection of the mouth, you can partially see a deeply lodged object near the glottis. What should you do now?

b. Begin chest compressions in an attempt to dislodge the object. Check airway regularly.

Rationale: If your patient is unconscious as a result of an FBAO, you should begin chest compressions after verifying an occluded airway. Chest compression will increase the intrathoracic pressure as much or more than abdominal thrusts and will be more likely to dislodge the object in the unconscious patient. Regularly inspect the mouth for the dislodged object during compressions and attempt ventilations if possible.

Question 44: Dispatch reports a jet ski collision on a local lake. The reporting party says that the two guys are in the water floating face down and one of their buddies just jumped off the boat to help them. When you arrive on scene the boat has just brought the two unconscious men to shore and CPR and rescue breathing are in progress. The first man has a pulse but is not breathing. The second man does not have a pulse and is apneic. What ventilation rate will you use for the first man? What about the second man?

d. 10-12 ventilations per minute for the first man and 6 ventilations per minute and 100 compressions for the second man

Rationale: The AHA guidelines specify that an adult who is apneic, but has a pulse, should have rescue breathing performed on them at a rate of 10-12 ventilations per minute. (mouth to mask or BVM ventilations). An adult who is pulseless and apneic should have CPR performed on him/her at a rate of 30 compressions to 2 ventilations. This ratio creates a ventilation rate of approximately 6 ventilations per minute with at least 100 compressions.

Question 45: You are called to the scene of a possible drowning. On arrival you see a 6 year old boy lying supine on the ground. Your partner cannot find a pulse and you begin CPR with a compression depth of:

c. At least 1/3 the diameter of the chest

Rationale: AHA guidelines state that compressions for a child should be AT LEAST 1/3 the anterior, posterior diameter of the chest.

Question 46: In 20 seconds of CPR you should deliver approximately how many chest compressions?

c. 34 compressions

Rationale: You want to deliver at least 100 compressions per minute (60 seconds). 20 seconds is .33 of a minute. So 3 multiplied by 34 = 102 compressions.

Question 47: You come upon a victim of asphyxial cardiac arrest. Which of the following is the correct order of action?

c. Do CPR for 5 cycles or approximately 2 minutes and then activate the emergency response system and retrieve the AED

Rationale: AHA CPR Guidelines specify that treatment for asphyxial cardiac arrest should begin with 5 cycles of CPR prior to activating the emergency response system or retrieving the AED.

Question 48: If you have two or more rescuers doing CPR, how often should you rotate compressor roles according to AHA CPR Guidelines?

b. Every 5 Cycles

Rationale: AHA CPR Guidelines say to change compressor roles every 2 minutes or 5 cycles. Studies have shown that the quality of CPR compressions typically diminish after two minutes.

Question 49: You and your partner are performing CPR on a 62 year old female who was found apneic and pulseless by neighbors. Your CPR will utilize:

a. Chest compressions at 110 a minute with about 6 breaths a minute

Rationale: The first answer is correct with compressions of at least 100 per minute and a 30:2 ratio would provide about 6 breaths a minute.

Question 50: A report of a woman with an acute abdominal complaint comes in on the ambulance radio. You and your partner Leбомowitz arrive to find a 45-year-old woman holding her stomach. You perform a primary survey and administer oxygen via NRB as Leбомowitz begins history taking. According to the NREMT medical assessment skill sheet, what should you do next?

d. Do a secondary assessment focusing on her chief complaint

Rationale: According to the NREMT you would follow history taking with a secondary assessment. In this case it would be focused on her chief complaint. This may be her stomach or something else. Don't get tunnel vision. Assessing airway, breathing, skin condition and pulse are part of the primary survey, which is followed by history taking not the secondary survey.

Question 51: You are dispatched to a home for a laceration. A 60 yr old male was chopping wood with a hatchet when he missed and hit his wrist. When you make patient contact, his wrist is still actively bleeding. Which of the following treatment sequences would be the MOST appropriate ?

c. Direct pressure - tourniquet

Rationale: The only answer that has a correct sequence of treatment is the 3rd. All other answer choices are out of order to the degree that the NREMT bleeding control/shock management practical skill sheet would have been failed. Critical criteria of "did not control hemorrhage in a timely manner". Remember, this question asks what is the MOST appropriate TREATMENT... it does not ask you to list all the steps of the bleeding control skill sheet. Elevating the wounded extremity is no longer part of the NREMT skill sheet. BSI is not included in the correct answer because it is not part of the treatment. The answer choices with BSI included, fail the critical criteria.

Question 52: You and your partner Abner are performing CPR on a 22 year old man who was in a motorcycle accident. Your CPR will utilize:

b. About 6 breaths per minute with a tidal volume enough to give adequate chest rise

Rationale: The second answer of 6 breaths per minute with a tidal volume of enough air to give adequate rise to the chest is correct according to AHA CPR guidelines. If it was rescue breathing with no compressions it would be 10-12 breaths per minute. Each of the other answers has one element incorrect.

Question 53: CPR is in progress on an 80 year old man who has fallen from a ladder. He has no pulse and chest compressions are being initiated. Current AHA guidelines specify that this man should receive approximately how many compressions over a period of 2 minutes?

d. 220 compressions

Rationale: 2010 AHA CPR Guidelines specify at least 100 compressions per minute for adults and children.

Question 54: You are performing CPR on an elderly male with no pulse. What number of chest compressions would be adequate over a 30 second period?

c. 58

Rationale: AHA guidelines specify a minimum of 100 compressions per minute for an adult which would warrant at least 50 compressions over 30 seconds so 58 is the best answer.

Question 55: You arrive on scene to a MCI vehicle accident involving multiple vehicles. Your triaged patient is a 4 year old boy who has multiple fractures and is pulseless. You and your partner begin CPR:

d. At a ratio of 15:2 with a compression depth of one third the diameter of the chest

Rationale: AHA CPR Guidelines say that 2 person CPR by healthcare professionals on a child is to be done at a 15:2 ratio with one breath every 3-5 seconds. Compressions are at least 100 per minute for everyone, and compression depth on pediatrics is 1/3rd the anterior-posterior diameter of the chest.

Question 56: You are called to the scene of a man down. Dispatch reports the man is pulseless and bystanders are doing CPR. According to the NREMT Cardiac Arrest Management/AED skill sheet, which of the following sequences is appropriate?

d. Complete one cycle of CPR, Attach the AED, Have everyone stand clear during rhythm check

Rationale: Your gloves should be on! According to the NREMT skill sheet one cycle of CPR should be performed prior to attaching AED. Inserting an adjunct is not listed on this NREMT Skill Sheet.

Question 57: You and your partner are called to a swimming pool for a 5 year old who does not have a pulse and is not breathing. You begin CPR including compressions at what depth?

c. At least 1/3 the diameter of the chest

Rationale: 2010 AHA guidelines stipulate that at least 1/3rd of the anterior posterior diameter of the chest should be compressed while performing CPR on a child.

Question 58: You and your partner Juan arrive on scene to a possible drowning. Coming through the back gate of the house you see two men doing CPR on a child of 8 or 9 years of age. When you begin CPR, what rate and depth of compressions will you use?

c. 15:2 / one third the diameter of the chest

Rationale: AHA CPR Guidelines specify that for 2 person (healthcare provider) CPR involving a child, the 15:2 ratio is used. Depth of compressions is now to be one third of the anterior-posterior diameter of the chest.

Question 59: Proper use of an AED should include:

c. Establishing the patient does not have a pulse

Rationale: An AED should only be used on a patient who has no pulse. CPR should be continued after each shock, per the 2010 AHA Guidelines.

Question 60: You have been dispatched to an ATV accident involving the rider being thrown into a rocky embankment. You arrive to find a female patient with a GCS of 6. Her respirations are labored and hoarse and she has multiple superficial lacerations to both legs. You do a jaw thrust maneuver to open her airway, but her respirations do not improve. What would be the most appropriate course of action?

d. Do a head tilt chin lift maneuver

Rationale: The newest AHA guidelines regarding opening the airway and stabilizing the spine of a trauma victim state that using the head tilt chin lift is recommended when the jaw thrust fails to open the airway. They found that the jaw thrust is difficult to perform, can move the spine, and may not effectively open the airway. They still recommend trying it first in the suspected trauma victim.

Question 61: How many compressions per minute would you give an adult patient who has no pulse?

b. 100-120 compressions per minute

Rationale: 2010 AHA guidelines now require at least 100 compressions per minute, however you can do more. The best option is 100-120 compressions per minute.

Question 62: Dispatch has just called you to Frontier Lake where a man's boat has capsized. The update is the patient is likely suffering from hypothermia and is breathing very shallow. You and your partner Sean arrive to find a man and a woman doing CPR on an approximately 48 year old male. When you and Sean begin CPR, what rate and depth of compressions will you use?

a. 30:2 / at least 2 inches

Rationale: AHA guidelines specify that for adult CPR a 30:2 ratio of compressions to breaths is to be used. Additionally, the depth of compressions should be at least 2 inches for adults. This question is also used to demonstrate that often times, the call you receive from dispatch is not the call at which you arrive. Be prepared for anything.

Question 63: A call has come in for a possible drowning. You and your partner respond to a public swimming pool a few blocks from the station. A 9 year old boy apparently slipped while running, hit his head on the edge of the pool, and fell in. He has no pulse and he is not breathing. What would be your best choice of action?

d. Take manual stabilization of the boy's head and neck while additional rescuers ventilate at about 13 breaths per minute and provide at least 100 compressions per minute.

Rationale: AHA Guidelines state that two person health care provider CPR performed on a child should be done at a 15:2 ratio. This means you will deliver about 13 breaths a minute instead of the 5-6 delivered for

an adult. Additionally, if a c-spine injury is suspected, as in this case, manual c-spine stabilization is now advised as mechanical/cervical may interfere with CPR. Answer 2 does not address the absence of pulse and artificial ventilations are being delivered too fast.

Question 64: You arrive on scene at a single-car accident involving a moose. Your patient was driving about 50 MPH when she hit the moose. After completing your scene size up, to which of the following would you proceed?

c. The patient's chief complaint

Rationale: According to the NREMT Patient Assessment /Management - Trauma Skill sheet, you would want to proceed with the primary survey. This begins with verbalizing a general impression of the patient, determining level of consciousness, and determining the chief complaint and apparent life threats. Baseline vital signs would not be taken until after the secondary assessment. A detailed physical exam (secondary assessment) would not be completed until the primary survey is finished. A SAMPLE history would not be taken until the primary survey is completed and a transport decision was made.

Question 65: In 20 seconds of CPR you should deliver approximately how many chest compressions?

d. 36 compressions

Rationale: You want to deliver at least 100 compressions per minute (60 seconds). 20 seconds is .33 of a minute or 99 compressions. 36 compressions a minute would give you 108 compressions, which is a more correct choice.

Question 66: You and your partner Toby arrive at a motel in response to a 911 call for an unconscious female. You find the woman pulseless and while Toby hooks up the AED, you begin delivering compressions. How many compressions per minute would you give this woman?

b. 100-109 compressions per minute

Rationale: 100-109 compressions per minute would satisfy AHA CPR Guidelines which state that AT LEAST 100 compressions per minute should be delivered.

Question 67: You and your partner Willy have just arrived at a restaurant where a man has fallen through a glass door. He has a laceration across his lower leg approximately 10 inches long and 1.5 inches deep. Which of the following treatment sequences would be the MOST appropriate?

b. Apply pressure to the wound - Elevate the legs - Transport

Rationale: The only answer that has a correct sequence of treatment is the 2nd. The other answer choices are out of order and would cause failure of the critical criteria of the NREMT bleeding control/shock management practical skill sheet (Did not control hemorrhage in a timely manner). BSI is not included in the correct answer because it is not part of the treatment. The answer choices with BSI included fail the critical criteria. NOTE: Elevating the extremity is no longer part of skill sheet however, elevating the legs is for treatment of shock.

Question 68: You arrive at an apartment building where a man has been reported unconscious. You enter the room to find him lying supine in his bed with his wife at his side. Respirations are rapid and shallow at 24 breaths per minute and you are unable to get a response from him. His wife says he is a diabetic and that she just lanced his finger to measure his glucose when you arrived. What would be the best course of action?

d. Administer high flow O2 Assess circulation - Make a transport decision

Rationale: The only answer that has a correct order of treatment is administer O2, check circulation, and make a transport decision. This is according to the NREMT medical assessment skill sheet. On the other answers: You would not start this treatment with glucose. You would not perform an intervention without getting some baselines. Ventilating a patient at 10-12 who is breathing at 24 is near impossible.

Question 69: You are called to a local river where a rafting trip has turned bad. A family of 5 was dumped into the river after their raft capsized, only 3 of them made it to shore. As you arrive on scene, a woman and a young boy are brought up from a rescue raft. The search and rescue crew say the victims were under water about 15 minutes. The woman does not have a pulse, but the boy does. What will your ventilation rate be for the woman? What about the boy?

b. 6 ventilations per minute for the woman / 12-20 ventilations for the boy

Rationale: According to AHA guidelines a woman who is pulseless and apneic should have CPR performed on her at a rate of 30:2. This ratio creates a ventilation rate of approximately 6 ventilations per minute. A child who only requires rescue breathing and no compressions (he has a pulse), would be given 12-20 ventilations per minute according to AHA Guidelines.

Question 70: You and your partner Abraham arrive on scene to a one-car collision with a cow. Your patient was driving about 45 MPH around a corner when the cow leaped from the roadside in front of the car. After doing your initial scene size up, which of the following would you proceed to?

b. Get a general impression of the patient

Rationale: According to the NREMT assessment skill sheets after the scene size up you should move to the primary survey/assessment, which begins with the general impression of the patient.

Question 71: What would you do if a newborn infant has a heart rate lower than 100 beats a minute?

a. Ventilate at 40-60 breaths a minute

Rationale: You should ventilate at 40 to 60 breaths a minute. If the infant is below 60 beats a minute, you should do chest compressions as well for a total of 120 events per minute(90 compressions and 30 breaths).

Question 72: CPR is in progress on an 35 year old woman who has fallen down an escalator. She has no pulse and chest compressions have been started. Current AHA guidelines specify that this woman should receive approximately how many compressions over a period of 3 minutes?

b. 306 compressions

Rationale: AHA CPR Guidelines specify AT LEAST 100 compressions per minute for adults and children.

Question 73: You are off duty at a college football game when you see a man at the concession counter fall to the ground. A doctor standing in line behind the man begins to assess and yells, "Call 911, he doesn't have a pulse!" You scan the area for an AED and see nothing. What should you do?

b. Begin CPR and ask a bystander to locate an AED

Rationale: This man had a witnessed collapse which is often coronary in nature. According to AHA Guidelines you would begin CPR and then call 911 if you were the lone healthcare provider and the collapse was likely asphyxial in nature. Ideally you would put an AED on the man immediately, but given the information, beginning CPR and asking someone to find an AED would be the best answer.

Question 74: AHA CPR guidelines state that with a patient who has a shockable rhythm you should_____.

c. Deliver 1 shock followed by CPR

Rationale: AHA Guidelines state that 1 shock should be given followed by CPR.

Question 75: According to the current AHA Guidelines how many milliliters of tidal volume should you deliver via BVM to an adult patient who is apneic?

d. Just enough to give adequate chest rise

Rationale: According to AHA Guidelines you should give just enough volume to cause adequate chest rise. Studies showed it was difficult, if not impossible, to estimate the tidal volume in ml. On a side note, The AHA recommends configuring all CPR manikins to 500ml-600ml.

Question 76: You and your partner Ashley arrive at a house where dispatch reports a 911 call was made. Nobody was on the phone to report any emergency, and attempts at calling back have resulted in a busy signal. A frantic woman exits the house screaming about her daughter not breathing. You enter the home to find a 9 year old girl lying supine on the kitchen floor very cyanotic. After 2 rescue breaths, each given over a period of _____, you begin ventilations with a BVM at a rate of _____ and a tidal volume of _____.

d. 1 second / 12-20 breaths per minute / enough air to cause adequate chest rise

Rationale: AHA guidelines have rescue breaths performed over 1 second. Proper ventilation rates for children are now 12-20 breaths per minute. Tidal volume is no longer referred to in ml. The volume of each breath should be "just enough to cause adequate chest rise."

Question 77: You and your partner Mani arrive on scene to a call of a man down. An approximately 20 year old male is pulseless. While Mani hooks up the AED, you begin delivering compressions. How many compressions per minute would you give this man?

d. 100-110 compressions per minute

Rationale: 2010 AHA guidelines stipulate that you perform compressions at a rate of AT LEAST 100 compressions per minute. You can go more than 100, but must do at least 100.

Question 78: You and your partner Maria have just started CPR on a 23 year old MVA victim. According to AHA CPR guidelines how often should you change compressor roles?

b. Every 2 minutes

Rationale: AHA CPR Guidelines say to change compressor roles every 2 minutes. Studies have shown that the quality of CPR compressions typically diminish after two minutes.

Question 79: You arrive at a restaurant to a call of a woman choking. You find her sitting in a chair, very pale, and sweating. She states in a very hush tone that she has a piece of steak caught in her throat. You should immediately?

d. Encourage her to cough as it is likely high enough in the airway to expel it

Rationale: Unless her airway is completely blocked you should not attempt Heimlich thrusts. If she can speak there is a chance she can work the obstruction out herself.

Question 80: You have just arrived at the scene to find a 27-year-old female complaining of anxiety and breathing difficulties. Which of the following questions would be most appropriate to ask first?

a. What is your name?

Rationale: When performing patient assessment, the first thing after your scene size-up is to do the primary survey (also called primary assessment). The first step of the primary survey is to form a general impression, followed by level of consciousness, then Airway, Breathing, and Circulatory status, and finally identify life threats during that process. While all of those questions are proper to ask at some point during an assessment, the best choice is to ask the patient her name first. This is critical information because it allows you to know who you are interacting with and helps to determine a general impression of the patient, according to their proper or improper response, and then determine airway status. This sets the stage for the rest of your assessment. You should always introduce yourself and ask for your patient's name at the beginning of your assessment. The other questions come during the history taking part of your assessment.

Question 81: You arrive on scene to find another EMS crew doing CPR on a 60 year old woman. What is the best indicator that ventilations are being performed correctly.

c. There is adequate chest rise and fall

Rationale: Watching rise and fall of the chest is the most reliable way of verifying the adequacy of ventilations in one or two-person CPR.

Question 82: You respond with your partner Lucy to a restaurant where a choking was reported. You enter and find an unconscious cyanotic female on the floor. She is supine with teriyaki sauce around her mouth. Bystanders report that she started choking, the Heimlich maneuver was performed, then she went unconscious. The lady was then lowered to the floor. What would you do for this patient?

d. Head tilt, chin lift, verify apnea, two slow breaths, compressions, and attempt to visualize obstruction using a laryngoscope and Magill forceps

Rationale: Open their airway and check to see if they are breathing. If the patient is not breathing, give them two slow breaths. If you are unable to get air into the lungs in this situation, it is likely an upper airway obstruction. Based on the new AHA guidelines for a choking patient, you would then begin CPR. If you are unable to dislodge the obstruction after multiple attempts, the direct removal with the proper equipment would be appropriate.

Question 83: You and your partner Ramone have arrived at the scene of a house fire where 3 victims were pulled a safe distance from the home and are being attended by first responders. Your initial impression is of two women and a child lying unconscious on the ground. None appears to have been burned and their clothing is intact. None of the patients is breathing, but the second woman and the child do have a palpable pulse. At what rate would each of these patients be ventilated?

b. Woman one would get 12 breaths over 2 minutes. Woman two would get 20 to 24 breaths over 2 minutes and the child would get 24 to 40 breaths over 2 minutes

Rationale: Woman 1 does not have a pulse so you are doing CPR. With a 30:2 compression to ventilation ratio you would be delivering approximately 6 breaths per minute. Woman 2 has a pulse so she would only be given rescue ventilations at a rate of 10 to 12 per minute. The 3rd patient, the child has a pulse and would require rescue breathing at a rate of 12 to 20 respirations per minute.

Question 84: Your patient is in cardiac arrest and compressions are being performed at _____ per minute. An ET tube has been inserted and ventilations via BVM have been initiated at _____. You set an IV in the _____ which is the preferred cannulation site of a patient receiving compressions.

a. 100 / 8-10 / AC

Rationale: Compression rates for CPR are at least 100 per minute. If an advanced airway is in place, ventilations are to be performed between 8 and 10 breaths per minute according to AHA guidelines. The peripheral veins of the antecubital fossa are preferred for their large size, easy visibility, and ease of access during compressions.

Question 85: AHA CPR/ AED Guidelines advise doing what after the first shock?

a. Resuming CPR for 5 cycles approximately 2 minutes

Rationale: AHA guidelines have the healthcare professional doing two minutes of CPR after an initial shock.

Question 86: You are transporting a 27-year-old female who was the driver in a single car MVA on a remote logging road. She is on oxygen at 12LPM and had an actively bleeding laceration on her scalp that has been controlled with pressure. Her pulse is 100 with respirations of 12 a minute and her blood pressure is 110/70. You are still 30 to 40 minutes from the hospital. According to the NREMT trauma management skill sheet, which of the following answer choices contains the best treatment for this patient given the circumstances.

d. Reassess and treat any conditions that present

Rationale: The patient has been treated, packaged, and baseline vital signs have been taken. The final step on the NREMT Trauma Assessment Skill sheet would be the reassessment and ongoing treatment of the patient.

Question 87: You are on call at a volunteer ambulance unit in a very remote part of the state. You and a driver with little to no medical training have just been dispatched to a call of man down. You arrive at a farm house and find an elderly man lying in the driveway. His wife says he collapsed while walking to the mailbox. CPR for this patient should include?

c. Compression to ventilation ratio of 30:2. Compressions at the nipple line

Rationale: AHA CPR Guidelines specify that for adult CPR a 30:2 ratio of compressions to breaths is to be used. Additionally, compressions should be done at the nipple line, avoiding the xiphoid process.

Question 88: You and your partner Chrysta have been called to Motel Schwartz where a man was reported bleeding from his leg. You arrive to find that the man has cut his own legs with a box knife several times. He is bleeding from at least 6 deep lacerations on his legs. According to the NREMT Bleeding Control/Shock Management Skill Sheet, which of the following would be the most appropriate treatment for this man?

d. Apply direct pressure to the wounds, Apply tourniquet, Treat for shock

Rationale: Answer 1 is incorrect because you would not apply arterial pressure or elevate the wound. Answer 2 is incorrect because O₂ should never be withheld. Answer 3 fails critical criteria because there is no focused physical exam and there was no immediate need for transport indicated.

Question 89: You are dispatched to a possible cardiac arrest. Your time of arrival is 10 minutes from the time of the call. You and your partner Rob enter the residence to find a man in his 50's lying supine on the living room floor. His wife says that he "just collapsed" while eating dinner. Which of the following treatment choices is not appropriate according to AHA Guidelines?

b. Do a visual check of his mouth and then begin CPR with 2 quick ventilations delivered over 1 second

Rationale: Blind finger sweeps of the mouth are no longer used by the AHA. A visual check of the mouth with each airway opening/ventilation cycle is now recommended. When a response time is more than 4 to 5 minutes, doing 5 cycles of CPR before defibrillation of victims of Ventricular Fibrillation (VF) Sudden Cardiac Arrest was found to increase survival (2 of 3 studies). The theory is that after a period of minutes, the heart has used all the available oxygen needed for proper contraction. The amplitude of the VF waveform is typically low and a shock may not eliminate the VF. A period of CPR prior to shock delivery will provide some blood flow/oxygen to the heart muscle making subsequent shock attempts more likely to eliminate the VF rhythm.

Question 90: You and your partner Naven have just arrived at a home where a woman in her 70's was reported to have passed out. You enter the residence to find a man in his 20's performing rescue breathing on the elderly woman who is supine on the floor. Naven attaches the AED and advises the man to move away. He pushes the analyze button and no shock is advised. The two of you begin CPR, delivering approximately_____. After 1 cycle of CPR an elderly gentleman enters the room and shows you a valid looking DNR signed by the patient and her doctor. What should you do?_____

b. 6 breaths and 100 compressions over 1 minute / Respect the DNR

Rationale: AHA Guidelines specify that a 30:2 compression to ventilation ratio be used during CPR on this patient. The ratio would yield approximately 6 breaths per minute and 100 compressions. On the second part of the question: If someone shows you a valid DNR you should respect it and discontinue resuscitation.

Question 91: You have been called to a home where a 1-year-old girl is in respiratory distress, possible apnea. The caregiver called 911 after finding the girl on the floor in front of the T.V. She does not know if the child is breathing or not. Which of the following choices below contains the most accurate facts related to this call?

a. Children have a large tongue that takes up more of the oropharynx and can cause an airway obstruction. Proper administration of CPR should include about an inch of padding under the child's shoulders.

Rationale: Children have a larger tongue in proportion to their oropharynx than adults. This makes it easy for a child's tongue to occlude their airway and cause an obstruction. Proper positioning of the airway will help reduce this. One way to position the child for proper airway alignment, if performing assisted or artificial ventilations during CPR, is to place padding under the child's shoulders to help put the airway in a neutral position.

Question 92: You are performing CPR on a 58 y/o patient when you notice your partner is not performing compressions adequately. He is performing compressions at the rate of:

d. 160 compressions a minute

Rationale: If he is not performing compressions adequately then the only answer option that fits would be 160 compressions a minute. AHA guidelines recommend at least 100 compressions a minute, but allow more than 100. The issue is that at 160 compressions a minute the rescuer is not allowing the chest to properly recoil between compressions and thus comprising blood flow during CPR. 100 to 120 compressions a minute is a great target range for providers.

Question 93: You are dispatched to a 57-year-old man who was injured by hitting a tree with his snowmobile. His wife called 911 and says the man is conscious, breathing, and cussing a blue streak. You arrive to find the man in severe pain with an obvious fracture to the femur. According to the NREMT PATIENT ASSESSMENT/MANAGEMENT - TRAUMA Skill Sheet your first concern is:

d. Requesting another EMS unit to respond with a sled for transport

Rationale: During scene size-up you would determine the need for additional EMS resources and request them. This would be the first concern, and would follow the logic laid out by the NREMT Trauma Assessment Skills Sheet. You should treat all patients as if they have infectious diseases and use proper BSI. You would want to identify if the patient has any other life threatening injuries. The mechanism of injury that causes a femur fracture can have severe impact on other major structures or organs. Getting baseline vital signs is also important, however, not in the first steps of the assessment.

Question 94: You are performing CPR on a 61 year old woman who was found unconscious with no pulse. Approximately how many chest compressions will you give her over a period of 30 seconds?

d. 55

Rationale: 2010 AHA CPR Guidelines specify at least 100 compressions per minute for an adult. A period of 30 seconds would warrant at least 50 compressions.

Question 95: AHA Guidelines specify that rescue breaths should be delivered over a period of _____.

a. 1 second

Rationale: According to AHA CPR Guidelines rescue breaths should be delivered over 1 second.

Question 96: Dispatch has just called you to Medical Park where a man has fallen out of his wheel chair. You and your partner Sheila arrive to find two bystanders doing CPR on an approximately 60 y/o male. When you begin CPR, what rate and depth of compressions will you use?

d. 30:2 / 2 inches

Rationale: AHA CPR Guidelines specify that for adult CPR a 30:2 ratio of compressions to breaths is to be used. Additionally, the depth of compressions should be 2 inches. This question is also used to demonstrate that often times, the call you receive from dispatch is not the call at which you arrive. Be prepared for anything.

Question 97: You and your partner are at lunch when you are called to a scene of a 3 yr old who does not have a pulse and is not breathing. You and your partner discuss what depth of compression should be given and you agree that it is?

c. At least 1/3rd the depth of the chest

Rationale: According to 2010 AHA guidelines at least 1/3rd of the depth of the anterior posterior diameter of the chest should be compressed when performing CPR on a child.

Question 98: You are assessing a 34 yr old white male who is crying and complaining of a very painful upper left quadrant. He has a history of pancreatitis and is a diabetic. Which of the following is the most appropriate action?

a. Put him on oxygen via NRB at 15LPM and transport him to the nearest hospital

Rationale: Giving this person oxygen and transporting him to the hospital is the most appropriate answer. Contrary to what books often recommend for a secondary assessment, palpating will likely exacerbate the effected area and will do NOTHING to change your treatment. Doing a SAMPLE, getting vitals, and doing a secondary assessment are out of order according the NREMT medical assessment skill sheet and just delay transport. A left lateral recumbent position is not advised as the man's pain is on the left (and you forgot the oxygen).

Question 99: You are called to a structure that has collapsed. Two patients have been pulled from the debris, triaged, and brought to the treatment area where you are in charge of 3 other EMTs. Patient #1 is a 7 year old female. Strong pulse of 90 and respirations of approximately 12 a minute. Breath depth increases, then decreases with periods of apnea. She has many abrasions across her face and neck. Patient #2 is a 9 year old boy who is not breathing and has no pulse. Which of the following answers contains an appropriate treatment for each patient?

d. Patient #1, with aid from 2 EMTs, will get assisted ventilations via Bag valve mask and 100% O₂ at 15 LPM . If a simple oral or nasal airway is in place, then ventilations will be at 12-20 per minute. If an endotracheal tube (ET) is in place, a ventilation rate of about 8-10 breaths per minute or 1 breath every 6-8 seconds will be used. Patient #2, with 2 EMTs, will give at least 100 chest compressions and 5-6 breaths per minute via BVM with 100% O₂ at 15 LPM. A ratio of 15 compressions to 2 ventilations should be used while a simple oral airway is in place.

Rationale: All answers, except for the 4th, contain some incorrect rate of administration, utilization of personnel, or unacceptable variation of AHA Guidelines.

Question 100: When assessing the breathing of an infant or child, you should look for _____?

c. Presence or absence of breathing

Rationale: AHA Guidelines specify that with children, you should verify the presence or absence of breathing. Also ALS continues to look for adequate breathing.