

Answers

1. Your community has begun an aggressive patient education campaign to reduce the risk of stroke. All EMS systems, hospital, and medical personnel have been asked to participate. You want to identify patients at the highest risk for stroke to enable you to target those most in need of intervention. As you review the list of problems demonstrated by the patient you saw today, which of the following is the MOST powerful modifiable risk factor for stroke?
 - High blood sugar
 - High blood potassium
 - High blood sodium
 - **Untreated high blood pressure (hypertension)**
2. Before giving rescue breath to an unresponsive patient, you must check for adequate breathing. You do this by listening and feeling for airflow through the victims nose or mouth. In addition, what other sign should you assess?
 - Look into the patients mouth to see if anything is blocking the airway
 - Gently shake the patient shoulders
 - Check the patient pupil and look for constructive response to light
 - **Look to see if the patients chest rises (and falls) when the patient breathes**
3. You are participating in the attempted resuscitation of a patient in a doctors office. You are performing mouth-to –mask breathing using a pocket mask without oxygen until the arrival of the resuscitation team. Which of the following describes the BEST method of delivering rescue breaths with a pocket mask but no oxygen?
 - Reduce the volume and duration of breaths from the volume and duration you would provide with mouth-to-mouth ventilation
 - **Provide approximately the same volume as you would with mouth-to-mouth ventilation (with a volume sufficient to make the chest rise) and deliver the breaths over 2 seconds**
 - Increase your air volume and duration of breaths
 - Give 3 breaths between series of compressions
4. Which of the following actions is MOST effective in restoring oxygenation and ventilation to an unresponsive, breathless, near-drowning victim?
 - **Force water from the victims lungs by performing the Heimlich maneuver**
 - Force water from the victims lungs by starting chest compressions
 - Stabilize the cervical spine with c-collar and spine board, then start the ABCs
 - Open the airway with a jaw-thrust maneuver, provide in-line cervical stabilization; start the ABCs.
5. During the “analyze” phase of AED operation, which of the following action is indicated?

- Continue chest compressions
 - Continue ventilations without chest compressions
 - Prepare the patient for transport
 - **Avoid all contact with and movement of the patient**
6. Which of the following actions is NOT performed when you “clear” a patient just before defibrillator discharge?
- Check the person managing the airway; body not touching bag mask or tracheal tube, oxygen flow turned OFF
 - Check yourself; hands correctly placed on paddles, body not touching patient or bed
 - Check monitor leads; leads disconnected to prevent shock damage to monitor
 - **Check others: no one touching patient, bed, or equipment connected to patient**
7. While treating a patient in persistent VF arrest after 3 shocks, you consider using vasopressin. Which of the following guidelines for use of vasopressin in TRUE?
- Give vasopressin 40 U every 3 to 5 minutes
 - Give vasopressin for better vasoconstriction and b-adrenergic stimulation than provided by epinephrine
 - **Give vasopressin as an alternative to epinephrine in shock-refractory VF**
 - Give vasopressin as the first-line to pressor agent for clinical shock caused by Hypovolemia.
8. Which of the following causes of PEA is MOST likely to respond to immediate treatment?
- Massive pulmonary embolism
 - **Hypovolemia**
 - Massive acute myocardial infarction
 - Myocardial rupture and stroke
9. Which of the following statements about treating a patient with a rapid atrial fibrillation (HR>180 bpm) is TRUE?
- Do not cardiovert if the tachycardia is producing serious signs and symptoms
 - You must have an exact rhythm diagnosis before cardioversion, especially in unstable patients
 - **Calcium channel blockers help control the rate in rapid atrial fibrillation**
 - Use amiodarone only for ventricular tachycardias, never for supraventricular tachycardias.
10. Which of the following drug-dose combinations is recommended as the initial medication to give a patient in documented Asystole?
- **Epinephrine 3 mg IV**
 - Atropine 3 mg IV
 - Epinephrin 10 ml of a 1:10 000 solution IV
 - Atropine 0.5 mg IV

11. Which of the following rhythm is a proper indication for transcutaneous cardiac pacing?
- Sinus bradycardia with no symptoms
 - Normal sinus rhythm with hypotension and shock
 - **Complete heart block with pulmonary edema**
 - Asystole that follows 6 or more defibrillation shocks
12. Which of the following statements correctly describes the ventilations that should be provided after tracheal tube insertion, cuff inflation, and position verification?
- **Delivers an average of 12 to 15 ventilations per minute with no pauses for chest compression.**
 - Deliver ventilations as rapidly as possible as long as visible chest rise occurs with each breath
 - Deliver ventilations with a tidal volume of 3 to 5 mL/kg
 - Deliver ventilation using room air until COPD is ruled out.
13. Which of the following agents used frequently in the early management of acute cardiac ischemia?
- Lidocaine bolus followed by a continuous infusion of lidocaine
 - **Chewable aspirin, sublingual nitroglycerin, and intravenous morphine**
 - Bolus of amiodarone followed by an oral ACE inhibitor
 - Calcium channel blocker plus intravenous furosemide
14. Which of the following conditions MOST closely mimics the signs and symptoms of an acute stroke?
- **Acute insulin-induced hypoglycemia**
 - Acute hypoxia
 - Isotonic dehydration and hypovolemia
 - Acute vasovagal or orthostatic hypotension
15. In proper order, what are the 4 “universal steps” required to operate an AED?
- **Power on AED, attaches AED to victim, analyze rhythm, deliver shock if indicated**
 - Attach AED to victim, power on AED, analyze rhythm, deliver shock if indicated
 - Attach electrode pads to victim, attach electrode cables to AED, power on AED, analyze rhythm, deliver shock if indicated
 - Power on AED, attach AED to victim, deliver first shock, analyze rhythm.
16. The drug vasopressin is a new addition to the ECC guidelines, for which of the following arrest rhythms is vasopressin recommended?
- Ventricular fibrillation
 - Asystole
 - PEA
 - **All of the above.**
17. When a monitor attached to a person in cardiac arrest displays a “flat line”, you should execute the “flat line protocol”. Which of the following actions is included in this protocol?

- Check monitor displays for sensitivity or “grain”
 - Obtain a right-sided 12 lead ECG
 - **Change LEAD SELECT control from lead II to paddles and back**
 - Administer a lower energy (100 J) defibrillator shock to “bring out” possible occult VF
18. Which of the following statements accurately describes the use of bag-mask ventilation (BMV) during resuscitation?
- BMV can be performed effectively with minimal training and little practice
 - BMV will deliver nearly 100% oxygen when combined with a reservoir and high flow rate oxygen
 - **BMV cannot be performed effectively by one person during resuscitation**
 - BMV should not be used if the patient has any spontaneous respiratory effort.
19. Which of the following patient needs immediate intubation?
- **An apneic patient whose chest does not rise with bag-mask ventilations**
 - An elderly woman with severe chest pain and shallow respirations at 30 breaths/min
 - A 55-year old insulin-dependent diabetic with ST-segment elevation and runs of VT
 - A subdued, alcohol-intoxicated college student with a reduced gag reflex
20. A person with acute heart attack pain often delays phoning the EMS system (997). Which of the following statements provides the MOST accurate explanation for this behavior?
- **People often deny that their symptoms might be due to a heart attack**
 - Symptoms of a heart attack come and go, so it is prudent to wait for up to an hour to avoid a “false alarm”
 - If family members are trained in CPR, the victim can wait and ask someone in the family to provide transportation to the hospital if the signs of heart attack persist
 - If you phone the EMS System, transport to the hospital actually takes longer than if the victim drives to the hospital or asks a family to provide the transportation.
21. You are caring for a 68-year old woman following surgery and have observed her continuously. She was talking normally to you earlier but now complains of a sudden numbness and weakness on one side of her face and “pins and needles” in her arm. You notice that one side of her face is drooping, and she is unable to repeat a phrase when asked. What is the MOST likely cause of these problems?
- A seizure
 - A heart attack
 - Cardiac arrest
 - **A stroke**
22. An adult victim of sudden, witnessed cardiac arrest arrives in the Emergency Department. You are thinking about these victims chances of survival. Which of the following would give this victim the BEST chance of survival from sudden out-of-hospital cardiac arrest?

- Immediate CPR and defibrillation within minutes (no more than 3 to 5 minutes)
 - CPR performed by EMS personnel upon arrival at the victims side
 - Defibrillation in 10 minutes with or without CPR
 - Immediate CPR with defibrillation in 10 minutes.
23. You are providing rescue breathing for an unresponsive, non-breathing child who has signs of circulation. How often should you provide rescue breaths for this child?
- Once every 3 seconds (20 breaths per minute)
 - Once every 4 seconds (15 breaths per minute)
 - Once every 6 seconds (10 breaths per minute)
 - Once every 10 seconds (6 breaths per minute)
24. You and your colleague are providing 2-rescuers CPR for a man. You are performing chest compressions: your colleague is performing bag-mask ventilation. Which of the following MOST accurately represents the speed of compressions that you should deliver to this man?
- A rate of 80 to 100 times per minute
 - A rate of about 100 times per minute
 - A rate no faster than 60 times per minute
 - A rate of at least 100 times per minute.
25. Which statement about injuries in infants and children is TRUE?
- Most fatal injuries are not preventable
 - Injuries are the chief cause of death in children and young adults
 - Bicycle helmets will not prevent death from head injuries
 - Scholl files are the leading cause of fatal childhood injuries.
26. It is worth the effort to quit smoking because:
- Some cigarettes contain more tars and nicotine than others and there is no certainty which type is being smoked
 - After a period of years the death rate of those who stopped smoking is nearly as low as those who never smoked
 - Smoking lowers the ability of the blood carry carbon monoxide
 - Other risk factors such as high blood pressure and high blood cholesterol cannot be controlled.
27. During the course of cardioversion, a patient suddenly develops ventricular fibrillation. Which one of the following steps should be taken?
- Begin external chest compression immediately
 - Inject 300 mg Amerdorone
 - Administer a second synchronized shock instantly
 - Turn off synchronizer switch and proceed with unsynchronized counter shock.
28. It is usually medically and legally acceptable to terminate CPR when:

- Twenty minutes have passed and the resuscitation effort has not been successful
- There is no papillary response to light
- There is some question as to whether or not the brain can fully and completely recover and respond
- **The cardiovascular systems have failed to respond to effectively performed BLS and ACLS efforts.**

29. Regarding ventilation during CPR:

- Large volume (800-1200 ml) is less dangerous and more beneficial
- **The placement of the tube must be confirmed using ETCO₂**
- LMA has no place in case of difficult intubation
- You do have to pause after the 5th compression for ventilation in case of the patient has endotracheal tube in situ
- Double lumen endotracheal tubes can be used.

30. Acute coronary syndromes:

- Pre-hospital 12 lead ECG is not mandatory
- About 10% die before reaching the hospital
- **It includes unstable agina factors and acute myocardial infarction**
- Clot busting agent has no place in the management.

31. A 57-year-old male is complaining of chest pain and dizziness. His blood pressure is 118/64, respiratory rate 24. The cardiac monitor displays sporadic episodes of Torsade's de Pointes. Which of the following treatment measures should be avoided in the management of this patient?

- Administration of amiodarone 300 mg I.V.
- Administration of magnesium sulfate
- **Consideration of an isoproterenol infusion**
- Defibrillation of any sustained episodes of torsade.

32. Which of the following statements regarding management of the suspected stroke patients is INCORRECT:

- Lorazepam or diazepam may be used to treat active seizures
- **5% dextrose in water is the preferred intravenous solution for administration to the suspected stroke patient**
- If the patient develops signs of herniation, intubation with hyperventilation may provide a temporary means of reducing increased intracranial pressure
- Signs and symptoms of acute stroke include an intense or usually severe headache of sudden onset, aphasia, incoordination and weakness.

33. Adenosine:

- Is pure B-adrenergic stimulator
- Is used to suppress ventricular ectopy
- Increases systolic blood pressure and dilates the renal and mesenteric vasculature
- **Is a first-line agent in the management of stable paroxysmal supraventricular tachycardia.**

34. A 50-year old female is complaining of chest pain, dizziness and nausea. Her blood pressure is 62/38, respirations 18. The cardiac monitor shows a sinus bradycardia at 48/minute with frequent, multi-formed PVCs. Your first choice of drug and dosage will be:

- Sublingual nitroglycerin
- Morphine 1-3 mg bolus
- **Atropine 0.5-1 mg IV bolus**
- Lidocaine 1-1.5 mg/kg IV bolus.

35. You have intubated a 60 year old female patient in cardiac arrest. Which of the following would indicate inadvertent esophageal intubation:

- Subcutaneous emphysema
- External jugular vein distension
- **Gurgling sounds heard over the epigastrium**
- Breath sounds present on only one side of the chest.

36. Select the INCORRECT statement regarding the management of the cardiac arrest patient in VF:

- The patients chest should be examined for the presence of a nitroglycerin patch prior to defibrillation and, if present, should be removed
- Successive shocks are more important than adjunctive drug therapy and delays between shocks to deliver medications may be detrimental
- When delivering the initial "stacked" shock sequence, CPR should be performed while the defibrillator is being recharged between shocks
- **When using conventional defibrillator paddles, the paddles should be left pressed to the chest during the delivery of the initial "stacked" shock sequence**
- Biphasic D.C. shock using less joules have better result than monophasic D.C. Shock.

37. A transient ischemic attack usually LASTS:

- Few minutes, disappear quickly and sometime may persist for several hours
- 30 minutes to 1 hour
- No more than four hours
- **Several minutes or up to 24 hours**
- It only occurs for few seconds.

38. Rescue breathing can sustain life in a non-breathing victim because:

- The pressure resulting from each breath forces carbon dioxide out of the victims nose or mouth
- **Each breath of air given contains approximately 16% oxygen**
- It cause the victim to exhale more oxygen
- The high carbon dioxide content in the rescuers breath stimulates the victims respiratory center.

39. A person using medicine prescribed to control high blood pressure:

- Can stop using it once the blood pressure has been brought to the normal range
- **Must continue to take medications to control the problem**
- Should have the pressure checked at least once every three years

- No longer has to be concerned about high salt intake and high cholesterol levels.

40. As plaque or fatty material are deposited and built on the inner surface of a blood vessel wall:

- The walls become stronger and better able to resist the high pressures resulting from hypertension
- Blood pressure decreases because the wall of the vessel becomes more flexible
- A persons chances of experiencing a heart attack are decreased
- **Blood pressure increases because the blood must be forced through a smaller opening in the vessel.**