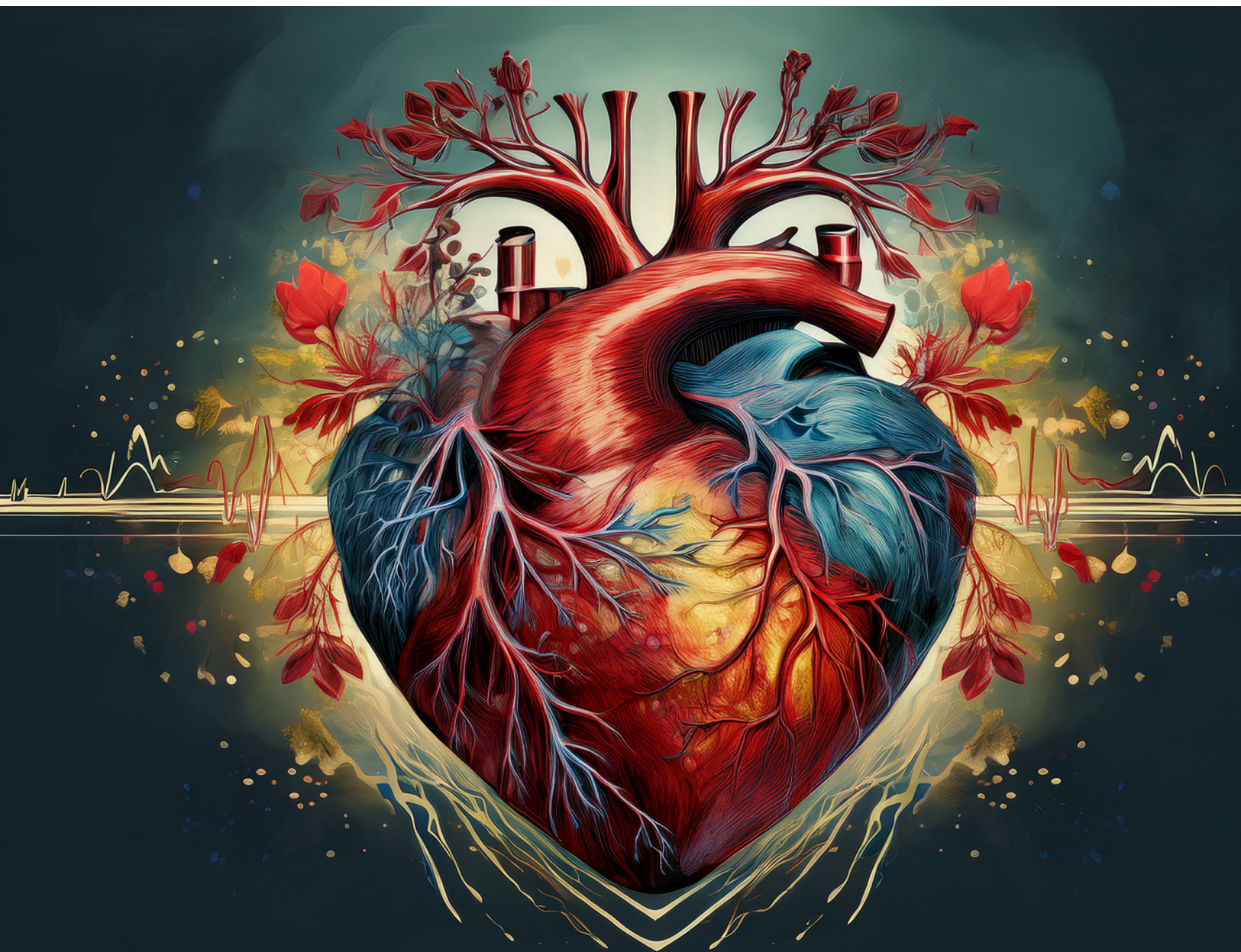


Cardiology Review



NCLEX Review Cardiac

1. Who among these patients with congenital heart diseases should be cared for first by the nurse?
 - a) the child with coarctation of the aorta with elevated blood pressure in the upper extremity
 - b) the child with tetralogy of Fallot with clubbing of fingers and elevated red blood cells
 - c) the child with ductus arteriosus who experiences fatigue after feeding
 - d) the child with ventricular septal defect who murmurs on auscultation of the chest

2. The child had been diagnosed to have rheumatic fever. Which of the following does the nurse expect to assess in the child?
 - a) painless nodules in bony prominence
 - b) decreased antistreptolysin O (ASO) titer
 - c) desquamation of the skin on the tips of fingers and toes
 - d) high-grade fever that spikes in the morning

3. The nurse teaches the mother about administering lanoxin (digoxin) to an infant. Which of the following statements, when made by the mother, indicates that the teaching is effective?
 - a) I can give the medication to my child as long as his heart rate is above 70 beats per minute
 - b) I will give the medication one hour before or 2 hours after feeding
 - c) I will mix the medication with the milk-feeding
 - d) I will mix the medication with mashed fruits

4. Which of the following is most important to monitor in the patient after surgery for abdominal aortic aneurysm?
 - a) intake and output measurement every shift
 - b) blood pressure every 4 hours
 - c) body temperature every 4 hours
 - d) abdominal girth

5. The patient experiences intermittent claudication. Which of the following should be included in the nursing care plan to promote comfort and general condition?
 - a) elevate the legs when sitting or lying supine
 - b) apply warm compresses to the legs
 - c) encourage progressive exercises
 - d) apply an elastic bandage on the legs

ANSWERS AND RATIONALE

1) C

- the patient is experiencing hypoxia. The need for oxygenation takes priority. Choices A, B, and D are expected findings.

2) A

- subcutaneous nodules are painless swellings. Other signs and symptoms of rheumatic fever are migrating polyarthritis, increased ASO titer, increased ESR, arthralgia, and fever. Choice C describes Kawasaki disease.

3) B

- digoxin should be given on an empty stomach. This ensures adequate absorption of the medication. Digoxin is not given in an infant if the apical pulse is below 90-110 bpm. For older children, if the apical pulse is below 70 bpm, the drug is also withheld.

4) D

- internal bleeding will cause an accumulation of blood within the abdominal cavity. An increase in abdominal girth is an accurate indicator of this complication.

5) C

- progressive exercises, mainly walking, promote arterial collateral circulation (intermittent claudication is a sign of arterial insufficiency).

6. The patient underwent cardiac catheterization. His blanket is soaked with blood. What is the best initial nursing action?
- a) notify the physician
 - b) monitor vital signs
 - c) assess where the site of bleeding is, and apply pressure on that site
 - d) transport the patient back to the cardiac catheterization laboratory
7. A patient with heart disease is on a low-fat diet. A nurse evaluates that the patient understands the diet if the patient states that a food item to avoid is:
- a) plums
 - b) cherries
 - c) avocado
 - d) peaches
8. Which of the following best shows effective coping for the patient after myocardial infarction?
- a) the patient plans to return to work in 2 to 3 days
 - b) the patient asked her husband to bathe and dress her
 - c) the patient states that she needs to commit to lifelong lifestyle changes
9. A patient complains of chest pain. What should be the nurse's priority action?
- a) check vital signs
 - b) notify physician
 - c) let the patient lie down and check if the pain is relieved by rest
 - d) administer sublingual nitroglycerine
10. Which assessment data are the usual manifestations of a patient with mitral valve stenosis?
- a) dependent edema
 - b) dyspnea on exertion and fatigue
 - c) distended neck vein
 - d) enlarged liver

ANSWERS AND RATIONALE

6) C

- puncture site for catheter insertion may be in the brachial or femoral vein/artery. In case of bleeding, the initial nursing action is to assess and apply pressure to the site.

7) C

8) D

- the patient accepts that a lifestyle change is a lifetime. This is to promote the health and well-being of the person.

- avocado is high in fats

9) A

- gather additional information about the patient's condition first. The next action is to notify the physician. (Assessment is done before implementation).

10) B

- mitral valve stenosis leads to left-sided heart failure. This produces pulmonary manifestations ("left lung"). Left heart affectation results in lung manifestations like dyspnea on exertion.

11. Which of the following are non-modifiable risk factors for cardiovascular disorders?
- a) age and gender
 - b) obesity and hypertension
 - c) stress and smoking
 - d) caffeine and alcohol
12. Which of the following laboratory findings is expected in a patient with myocardial infarction?
- a) elevated troponin levels
 - b) elevated SGPT (ALT) levels
 - c) elevated LDH 2 levels
 - d) elevated CK-MM levels
13. Which of the following is a manifestation of negligence when a patient with heart disease is in labor
- a) the patient is in a lithotomy position with her feet in stirrups
 - b) the patient's vital signs are monitored closely
 - c) the patient receives oxygen therapy through a face mask
 - d) the patient has a patent IV access line
14. The patient had undergone cardiac catheterization using the femoral artery. Which of the following should be included in the patient's nursing care plan?
- a) keep the affected leg immobile and in the extended position for a few hours
 - b) apply a warm compress at the puncture site
 - c) allow the patient to ambulate once vital signs are stable
 - d) maintain NPO status until gag reflex returns
15. After cardiac catheterization, the patient experiences chest pain. Which of the following is the best initial nursing action?
- a) bring the patient back to the cardiac catheterization laboratory
 - b) administer analgesic
 - c) take an ECG
 - d) assist the patient in ambulating

ANSWERS AND RATIONALE

11) A

- age and gender are non-modifiable or unavoidable risk factors for cardiovascular disorders. The other options are modifiable risk factors.

12) A

- Elevated troponin levels are the best indicators of M.I. Troponin I of 1.5 mg/ml and Troponin T greater than 0.1 to 0.2 support MI.

13) A

- lithotomy position increases cardiac workload. The patient should be placed in a semi-Fowler's position to decrease cardiac workload and promote oxygenation.

14) A

- after cardiac catheterization involving the femoral artery, the affected leg should be immobile and extended for a few hours. This is to prevent bleeding and to promote adequate circulation in the leg.

15) C

- assessment is the first nursing action. ECG may reveal dysrhythmias, which cause chest pain after cardiac catheterization. Gather adequate information before implementation.

16. Which of the following signs and symptoms indicate pacemaker failure?
- a) excessive thirst
 - b) prolonged hiccups
 - c) flushing of the skin
 - d) increased urine output
17. The patient is diagnosed with acute myocardial infarction. He has a nursing diagnosis of decreased cardiac output. This is secondary to
- a) chest pain
 - b) circulatory overload
 - c) electrolytes imbalance
 - d) ventricular dysrhythmias
18. Which of the following physician's orders should the nurse question when preparing a patient who will undergo an artery bypass graft within an hour?
- a) potassium chloride per slow IV drip
 - b) calcium channel blocker
 - c) digoxin
 - d) prophylactic antibiotic
19. The patient has been diagnosed to have right-sided congestive heart failure (RSCHF). Which signs and symptoms does the nurse expect to observe in the patient?
- a) shortness of breath
 - b) ascites
 - c) rales in the lung apices
 - d) pink-tinged, frothy sputum
20. The patient with the cardiac disorder experiences hypokalemia. Which of the following ECG changes would the patient have?
- a) elevated ST segment
 - b) presence of U-wave
 - c) tall T-wave
 - d) prolonged QRS complex

ANSWERS AND RATIONALE

16) B

- prolonged hiccups indicate pacemaker failure. Other signs and symptoms of pacemaker failure are dysrhythmias, dizziness, faintness, chest pain, shortness of breath, increase or decrease in apical rate.

17) D

- ventricular dysrhythmias are the primary cause of decreased cardiac output with myocardial infarction.

18) C

- digoxin increases the force of cardiac contractility, and therefore, it increases cardiac workload.

19) B

- RSCHF is characterized by venous backup, like ascites. Choices A, C, and D manifest a patient with Left-sided CHF.

20) B

- hypokalemia is characterized by a U-wave, depressed ST segment, and short T-wave.

21. The patient with congestive heart failure develops cardiac tamponade. Which of the following signs and symptoms would the nurse assess?
- distant or muffled heart sounds
 - hypertension
 - bradycardia
 - increased urine output
22. The nurse is giving health teachings to several patients. Which among these patients is at risk for coronary artery diseases?
- the patient who works in the department store
 - the patient who smokes a cigarette
 - the patient who had her menarche at age 12 years old
 - the patient, whose serum cholesterol level is 180 mg/dL
23. Which of the following questions is most important to ask in a patient with congestive heart failure who has jugular vein distention?
- What time do you go to sleep during the night?
 - How many pillows do you use when lying down?
 - What do you drink before going to sleep?
 - How many hours of night sleep do you have?
24. The drug of choice to control premature ventricular contractions, ventricular tachycardia, or ventricular fibrillation is
- quinidine
 - procainamide
 - bretylum
 - lidocaine
25. Which of the following situations in a patient with myocardial infarction (MI) should be given the highest priority?
- the patient complains of palpitations
 - the patient's BP is 170/95
 - the patient has premature ventricular contractions of 4 multifocals/min
 - the patient's serum enzyme studies are elevated

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ANSWERS AND RATIONALE

21) A

- cardiac tamponade involves the accumulation of fluid in the pericardial sac. It restricts ventricular filling and decreases cardiac output. It is characterized by distant, muffled sounds, distended neck veins, and diminished or absent pulse (Beck's triad).

22) B

- cigarette smoking is one of the most common risks of CAD (Coronary artery disease).

23) B

- orthopnea, which is difficulty breathing when in a lying position relieved by an upright position, is a sign of progressive cardiac disorder.

24) D

- lidocaine is the first line of the drug to control PVCs, VT, and VF. Lidocaine exerts an anesthetic effect on the heart, thus decreasing myocardial irritability.

25) B

- elevated BP increases afterload and, therefore, increases cardiac workload. This leads to increased myocardial oxygen demand.

26. The patient has coronary artery disease (CAD). When made by the patient, which of the following statements indicates that he understands the health instructions?
- a) I need to avoid carbohydrates.
 - b) I need to avoid working in cold weather
 - c) I need to avoid exercise
 - d) I need to avoid fruits
27. A patient had a second myocardial infarction episode. The nurse determines the precipitating factor when the patient says
- a) I use my NicoDerm patch so I can quit smoking
 - b) I walk in the park each summer morning.
 - c) I get tired when I climb a flight of stairs
 - d) I include fruits and vegetables in my diet
28. The patient has been diagnosed to have chronic congestive heart failure (CHF). What is the earliest sign that indicates the recurrence of CHF?
- a) dyspnea
 - b) syncopal episode
 - c) tachycardia
 - d) elevated blood pressure
29. Which of the following are prominent signs and symptoms in a patient with COA (coarctation of the aorta)?
- a) elevated BP in both lower extremities
 - b) diminished femoral pulse
 - c) cyanosis
 - d) machinery murmurs
30. Which of the following signs and symptoms indicate pacemaker failure?
- a) increased pulse rate
 - b) decreased pulse rate of 60 beats per minute
 - c) flushing of the skin
 - d) elevated body temperature

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ANSWERS AND RATIONALE

26. B

- working in cold weather precipitates coronary artery spasm. This reduces myocardial tissue perfusion and oxygenation. Therefore, patients with CAD should avoid working in cold weather.

27) A

- nicotine causes vasoconstriction. NicoDerm patch is contraindicated for patients with a history of M.I.

28) A

- dyspnea is the earliest sign that indicates recurrence of CHF

29) B

- The following signs and symptoms characterize coarctation of the aorta:

- hypertension in the higher extremities
- hypotension in the lower extremities
- diminished pulse in the lower extremities

30) B

- bradycardia is a sign of pacemaker failure. Other signs and symptoms of pacemaker failure are as follows: dizziness, faintness, shortness of breath, and prolonged hiccups.

31. Left-sided congestive heart failure is most often associated with which of the following manifestations?
- a) dyspnea
 - b) distended neck vein
 - c) hepatomegaly
 - d) pedal edema
32. A patient with chest pain is admitted to the emergency department. He states that his chest pain was not relieved after taking three nitroglycerine tablets at home. Which of the following is the best initial nursing action?
- a) administer the prescribed analgesic
 - b) give nitroglycerine sublingually
 - c) monitor blood pressure
 - d) monitor ECG
33. After cardiac catheterization, which of the following findings should the nurse report to the physician?
- a) pain in the groin when changing positions
 - b) the patient denies a tingling sensation in the extremity
 - c) the patient verbalizes that she experienced a flushing sensation during the procedure
 - d) the toenail blanches on compression, and the pinkish color returns after 1 to 3 seconds
34. After cardiac catheterization that involves the femoral artery, which of the following actions by the RN needs intervention by the charge nurse?
- a) the RN monitors the patient's vital signs
 - b) the RN applies a small ice pack over the puncture site
 - c) the RN elevates the head of the bed to a sitting position as requested by the patient
 - d) the RN immobilizes the affected extremity in extension
35. An elderly patient who had suffered a severe heart attack says to the nurse, "I have a living will, and my children disagree with what I have decided. I hope you nurses and doctors will abide by my wishes." Which of these responses by the nurse is best?
- a) Your wishes are the most important
 - b) do you expect your children to be here when you have to make decisions?
 - c) you and your children should decide together
 - d) it's always best to reconsider your decisions

ANSWERS AND RATIONALE

31) A

- Signs and symptoms characterize left-sided congestive heart failure: a. pulmonary edema ("left" - "lung"), b. cellular hypoxia, c. RAAS activation --> hypertension and hypokalemia. Choices B, C, and D are signs and symptoms of right-sided CHF.

32) A

- relief of chest pain is a priority in myocardial infarction. Pain increases cardiac workload and may lead to shock. Morphine sulfate is the drug of choice.

33) A

- pain in the groin after cardiac catheterization may indicate hematoma at the site. This indicates bleeding at the site and compression of blood vessels by the hematoma may occur. This, in turn, may cause circulatory impairment in the area.

34) C

- avoid acute hip flexion after cardiac catheterization involving the femoral artery to prevent circulatory impairment. HOB may be elevated only up to 30 deg for the first 6 to 8 hours

35) A

- the patient's wishes are primary considerations in a living will.

36. The following are manifestations of left-sided congestive heart failure. Select all that apply
- a) hypertension
 - b) dependent edema
 - c) hypokalemia
 - d) paroxysmal nocturnal dyspnea
 - e) non-productive cough
 - f) pink-tinged, frothy sputum
 - g) ascites
37. Which health teachings should be included when caring for a patient with angina pectoris?
- a) limit cigarette smoking
 - b) do not go out during cold weather
 - c) take sublingual nitroglycerine every 5 minutes until chest pain subsides
 - d) keep nitroglycerine in a clear plastic container
38. A patient has a chamber pacemaker; which of the following is true about the pacemaker?
- a) it provides atrial firing
 - b) it provides ventricular firing
 - c) it provides both atrial and ventricular firing
 - d) it provides alternate atrial and ventricular firing
39. Which of the following is a characteristic manifestation of the patient with cardiac tamponade?
- a) increased pulse rate
 - b) rapid respiration
 - c) increased body temperature
 - d) distended neck vein
40. Which of the following findings in a patient undergoing cardiac catheterization needs immediate follow-up?
- a) bleeding on dressing
 - b) capillary refill of more than 3 seconds
 - c) feeling of warmth and thirst
 - d) drowsiness

ANSWERS AND RATIONALE

36) A, C, D, E, F

- these are signs and symptoms of left-sided CHF. Signs and symptoms of left-sided CHF are due to pulmonary edema, cellular hypoxia, and activation of the renin-angiotensin-aldosterone system (RAAS).

37) B

- precipitating events to chest pain in angina pectoris include exposure to cold, exertion, eating a large meal, and strong emotions.

38) C

- a dual chamber pacemaker provides both atrial and ventricular firing.

39) D

- cardiac tamponade, an accumulation of blood in the pericardial sac, is characterized by Beck's triad signs and symptoms, which are as follows: distended neck vein, muffled heart sounds, and diminished or absent pulse.

40) B

- capillary refill of more than 3 seconds indicates circulatory impairment and needs immediate follow-up. Normal capillary refill time is 1 to 2 seconds.

41. The nurse is completing the admission assessment of the patient with chest pain. Which of the following statements by the patient indicates the priority modifiable risk factor for coronary artery disease?
- a) I have been told that I have a high cholesterol level
 - b) my father died of a heart attack at age 48
 - c) I have been under a lot of stress at work lately
 - d) I know I am overweight and have to do something about it
42. The patient with chest pain was diagnosed with myocardial infarction and is now ready to be discharged. The nurse is reviewing discharge instructions. Which statement, if made by the patient, indicates the highest priority teaching need?
- a) I am going to try and cut down on smoking
 - b) from now on, I am going to eat mainly fruits and vegetables
 - c) I plan to take up jogging when I go home
 - d) I plan to work half days for a while
43. A nurse is providing care to a patient immediately after inserting a cardiac pacemaker. Which action is most important for the nurse to do first?
- a) observe the incision site for signs of local infection
 - b) arrange for the patient to have a post-insertion X-ray
 - c) monitor vital signs every 15 minutes until stable
 - d) encourage the patient to get out of bed with assistance
44. The home care nurse calls the wife of the patient with chronic heart disease, who is coughing frothy, white secretions and became confused during the night. Which question is most important for the nurse to ask?
- a) Did your husband eat breakfast this morning?
 - b) What did your husband do yesterday?
 - c) Where did your husband sleep last night?
 - d) Are your husband's ankles swollen?
45. The nurse is completing the admission assessment form on the patient with chronic heart disease. If noted by the nurse, which of the following indicates a priority symptom of left-sided heart failure?
- a) distended neck vein
 - b) edema of the lower extremities
 - c) weight gain of 10 pounds in the last month
 - d) crackles in the lungs

ANSWERS AND RATIONALE

- 41) A
- high serum cholesterol is one of the most common modifiable risk factors for coronary artery disease.
- 42) C
- walking is the best exercise for post-MI patients undergoing cardiac rehabilitation. Jogging may not be well-tolerated by the patient. Therefore, choice C indicates the patient's knowledge deficit, which requires further teaching.
- 43) C
- close monitoring of the patient after the insertion of a cardiac pacemaker, especially the vital signs, is very essential. Changes in the vital signs indicate the occurrence of complications.
- 44) C
- orthopnea, like sleeping on a couch, indicates progressive heart failure like CHF (congestive heart failure) and pulmonary edema.
- 45) D
- left-sided congestive heart failure may lead to pulmonary edema. Signs and symptoms pertaining to the lungs are characteristic of left-sided congestive heart failure. Choices A, B, and C are due to venous backup, which characterize right-sided congestive heart failure.
46. The nurse is caring for a patient with congestive heart failure. During the assessment, the nurse noted that the patient was dyspneic and crackles were audible on auscultation. The nurse suspects excess fluid volume. What additional signs would the nurse expect to note if excess fluid volume is present in this patient?
- weight loss
 - flat neck and hand veins
 - an increase in blood pressure
 - a decreased central venous pressure (CVP)
47. A nurse is caring for a patient with acute congestive heart failure who is receiving high doses of a diuretic. During the assessment, the nurse noted that the patient had flat neck veins, generalized muscle weakness, and diminished deep tendon reflexes. The nurse suspects hyponatremia. What additional signs would the nurse expect to note in this patient if hyponatremia were present?
- dry skin
 - decreased urinary output
 - hyperactive bowel sounds
 - increased specific gravity of the urine

48. A patient arrives in the emergency room complaining of chest pain that began 4 hours ago. A troponin T blood specimen is obtained, and the results indicate a 0.6 ng/mL level. The nurse interprets that this result indicates a:

- a) normal level
- b) a low value that indicates possible gastritis
- c) level that indicates a myocardial infarction
- d) level that suggests the presence of possible angina

49. A patient with atrial fibrillation who is receiving maintenance therapy of warfarin sodium (Coumadin) has a prothrombin time of 35 seconds. Based on the prothrombin time, what orders does the nurse anticipate?

- a) adding a dose of heparin sodium
- b) holding the next dose of warfarin
- c) increasing the next dose of warfarin
- d) administering the next dose of warfarin

50. A patient recently diagnosed with myocardial infarction and impaired renal function is recuperating in the step-down cardiac unit. The patient's blood pressure has been borderline low, and intravenous (IV) fluids have been infusing at 100 ml/hr via a central line catheter in the right internal jugular for approximately 24 hours to increase renal output and maintain blood pressure. Upon entering the patient's room, the nurse noted that the patient was breathing rapidly and coughing. The nurse determines that the patient is most likely.

- a) hematoma
- b) systemic infection
- c) electrolyte overload
- d) circulatory overload

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ANSWERS AND RATIONALE

46) C

- assessment findings associated with excess fluid volume include cough, dyspnea, crackles, tachypnea, tachycardia, elevated blood pressure and a bounding pulse, an elevated CVP, weight gain, edema, neck and hand vein distention, altered level of consciousness, and decreased hematocrit. Options A, B, and D identify signs noted in deficient fluid volume.

47) C

- hyperactive bowel sounds indicate hyponatremia. Options A, B, and D are signs of hypernatremia. In hyponatremia, increased urinary output and decreased specific gravity of the urine would be noted. Dry skin occurs in deficient fluid volume.

48) C

- troponin is a regulatory protein found in striated muscle. The troponins function together in the contractile apparatus for striated muscle in skeletal muscle and the myocardium. Increased amounts of troponins T are released into the bloodstream when an infarction causes damage to the myocardium. A troponin T value higher than 0.1 to 0.2 ng/mL is consistent with a myocardial infarction.

49) B

- the normal prothrombin time (PT) is 9.6 to 11.8 seconds (male adult) or 9.5 to 11.3 seconds (female adult). A therapeutic PT level is 1.5 to 2.0 times higher than the normal level. Because the value of 35 seconds is high (and perhaps near the critical range), the nurse should anticipate that the patient will not receive further doses.

50) D

- circulatory (fluid overload) is a complication of intravenous therapy. Signs include rapid breathing, dyspnea, a moist cough, and crackles. The patient's blood pressure will also increase when circulatory overload is present. Hematoma is characterized by ecchymosis, swelling, leakage at the IV insertion site, and hard and painful lumps at the site. Chills, fever, malaise, headache, nausea, vomiting, backaches, and tachycardia characterize systemic infection. Signs of electrolyte imbalance depend on the specific electrolyte.

51. A clinic nurse has provided home care instructions to a patient with a history of cardiac disease who has just been told that she is pregnant. Which statement, if made by the patient, indicates a need for further instructions?
- a) it is best that I rest lying on my side to promote blood return to the heart
 - b) I need to avoid excessive weight gain to prevent increased demands on my heart.
 - c) I need to try to avoid stressful situations because stress increases the heart's workload.
 - d) During the pregnancy, I need to avoid contact with other individuals as much as possible to prevent infection.
52. A nurse is providing instructions to a maternity patient with a history of cardiac disease regarding appropriate dietary measures. Which statement, if made by the patient, indicates an understanding of the information provided by the nurse?
- a) I should drink adequate fluids and increase my intake of high-fiber foods
 - b) I should maintain a low-calorie diet to prevent any weight gain
 - c) I should lower my blood volume by limiting fluids
 - d) I should increase my sodium intake during pregnancy
53. A clinic nurse reviews the record of a child just seen by a physician and diagnosed with suspected aortic stenosis. The nurse expects to note documentation of which clinical manifestation is specifically found in this disorder.
- a) pallor
 - b) hyperactivity
 - c) exercise intolerance
 - d) gastrointestinal disturbances
54. A nurse has provided home care instructions to the mother of a child who is being discharged following cardiac surgery. Which statement made by the mother indicates a need for further instructions?
- a) a balance of rest and exercise is important
 - b) I can apply lotion or powder to the incision if it is itchy
 - c) activities in which my child could fall need to be avoided for 2 to 4 weeks
 - d) large crowds of people need to be avoided for at least 2 weeks following surgery
55. A nurse provides home care instructions to the parents of a child with congestive heart failure (CHF) regarding the procedure for the administration of digoxin (Lanoxin). Which statement, if made by the parent, indicates the need for further instructions?
- a) I will not mix the medication with food
 - b) If more than one dose is missed, I will call the physician
 - c) I will take the child's pulse before administering the medication
 - d) if the child vomits after medication administration, I will repeat the dose

ANSWERS AND RATIONALE

51) D

- to avoid infections, visitors with active infections should not be allowed to visit the patient; otherwise, restrictions are not required. Stress causes increased heart workload, and the patient should be instructed to avoid stress. Too much weight gain can place further demands on the heart. Resting should be done by lying on the side to promote blood return.

52) A

- constipation can cause the patient to use Valsalva's maneuver. This maneuver can cause blood to rush to the heart and overload the cardiac system. Therefore, high-fiber foods are essential. A low-calorie diet is not recommended during pregnancy and could be harmful to the fetus. Diets low in fluid can reduce blood volume, depriving the fetus of nutrients. Therefore, adequate fluid intake and high-fiber foods are crucial. As prescribed by the physician, sodium intake should be somewhat restricted, as excess sodium can overload the circulating blood volume and contribute to cardiac complications.

53) C

- The child with aortic stenosis shows signs of exercise intolerance, chest pain, and dizziness when standing for long periods. Pallor may be noted but is not specific to this type of disorder alone. Options B and D are not related to this disorder.

54) B

- The mother should be instructed that lotions and powders should not be applied to the incision site. Lotions and powders can irritate the surrounding skin, which could lead to skin breakdown and subsequent infection of the incision site. Options A, C and D are accurate instructions regarding home care after cardiac surgery.

55) D

- The parents need to be instructed that if the child vomits after the digoxin is administered, they are not to repeat the dose. Options A, B and C are accurate instructions regarding the administration of this medication. In addition, the parents should be instructed that if a dose is missed and is not identified until 4 hours later, the dose should not be administered.

56. A nurse is caring for an infant with congenital heart disease is monitoring the infant closely for signs of congestive heart failure (CHF). The nurse assesses the infant for which early sign of CHF?
- a) cough
 - b) pallor
 - c) tachycardia
 - d) slow and shallow breathing
57. A physician has prescribed oxygen as needed for an infant with congestive heart failure (CHF). In which situation should the nurse administer the oxygen to the infant?
- a) during sleep
 - b) when changing the infant's diapers
 - c) when the mother is holding the infant
 - d) when drawing blood for electrolyte testing
58. A nurse is monitoring an infant with congestive heart failure (CHF). Which of the following alerts the nurse to suspect fluid accumulation and the need to call the physician?
- a) bradypnea
 - b) diaphoresis
 - c) decreased blood pressure
 - d) a weight gain of 1 lb in 1 day
59. The nurse is preparing the patient with chronic heart failure for discharge to home. Which statement if made by the patient indicates the highest priority teaching need?
- a) I will get out of bed slowly in the morning
 - b) I plan to rest as much as possible when I get home
 - c) I will let my health care provider know if I gain 4 pounds or more in two days
 - d) I will have to cut down on potato chips
60. A 22-year-old adult undergoes a cholesterol blood test at a screening clinic sponsored by a local health club. The nurse at the screening teaches the patient that diet and exercise should be used as health measures to maintain the total cholesterol below:
- a) 80 mg/dL
 - b) 200 mg/dL
 - c) 250 mg/dL
 - d) 300 mg/dL

ANSWERS AND RATIONALE

56) C

- The early signs of congestive heart failure (CHF) include tachycardia, tachypnea, profuse scalp sweating, fatigue and irritability, sudden weight gain, and respiratory distress. A cough may occur in CHF due to mucosal swelling and irritation, but it is not an early sign. Pallor may also be noted in the infant with CHF.

57) D

Crying depletes the limited energy supply, elevates the heart's workload, and raises oxygen demands. Oxygen administration may be prescribed during stressful periods, particularly during episodes of crying or invasive procedures. Options A, B, and C are unlikely to result in crying from the infant.

58) D

A weight gain of 0.5 kg (1 lb) in one day is typically due to fluid accumulation. The nurse should assess urine output, check for signs of facial or peripheral edema, auscultate lung sounds, and inform the physician about the weight gain. Tachypnea and elevated blood pressure can occur with fluid accumulation. Diaphoresis is a sign of CHF but is not exclusive to fluid accumulation and usually occurs during exertional activities.

59) B

- The patient with chronic heart failure should maintain a balance between rest and activity. Thus, choice B indicates a knowledge deficit on the part of the patient, highlighting the need for further teaching.

60) B

- The nurse should counsel the patient to keep the total cholesterol level under 200 mg/dL. This will help prevent atherosclerosis, which can lead to a number of cardiovascular disorders later in life. Options C and D are elevated values that place the patient at risk for cardiovascular disease. Although option A is a low cholesterol level, option B identifies a realistic value to assist in preventing cardiovascular disease.

61. The nurse notes an isolated premature ventricular contraction (PVC) on the cardiac monitor. The appropriate nursing action is to:
- prepare for defibrillation
 - continue to monitor the rhythm
 - notify the physician immediately
 - prepare to administer lidocaine hydrochloride (xylocaine)
62. The nurse is caring for a patient who has been transferred to the surgical unit after having a pelvic exenteration. During the postoperative period, the patient complains of pain in the calf area. What action should the nurse take?
- ask the patient to walk and observe the gait
 - lightly massage the calf area to relieve the pain
 - check the calf area for temperature, color, and size
 - administer prn morphine as prescribed for postoperative pain
63. A patient has developed atrial fibrillation and has a ventricular rate of 150 bpm. The nurse assesses the patient for:
- flat neck veins
 - nausea and vomiting
 - hypotension and dizziness
 - hypertension and headache
64. A 45-year-old patient is admitted to the hospital for evaluation of recurrent runs of ventricular tachycardia noted on Holter monitoring. The patient is scheduled for electrophysiology studies (EPS) the following morning. Which statement should the nurse include in a teaching plan for this patient?
- you will continue to take your medications until the morning of the test
 - you will be sedated during the procedure and will not remember what has happened
 - this test is a noninvasive method of determining the effectiveness of your medication
 - during the procedure, a special wire is used to increase the heart rate and produce the irregular beats that cause your signs and symptoms
65. A nurse is providing diet teaching to a patient with congestive heart failure (CHF). Which of the following does the nurse tell the patient to avoid?
- sherbet
 - steak sauce
 - apple juice
 - leafy green vegetables

ANSWERS AND RATIONALE

61) B

- As an isolated occurrence, PVCs are not life-threatening. In this situation, the nurse should continue to monitor the patient. However, frequent PVCs may be precursors to more life-threatening rhythms, such as ventricular tachycardia and ventricular fibrillation. If this occurs, the physician needs to be notified.

62) C

- The nurse monitors for postoperative complications such as deep vein thrombosis, pulmonary emboli, and wound infection. Pain in the calf area could indicate a deep vein thrombosis. A change in the color, temperature, or size of the patient's calf could also indicate this complication. Options A and B could result in an embolus if, in fact, the patient had a deep vein thrombosis. Administering pain medication for this patient complaint is not the appropriate nursing action. Further assessment is needed.

63) C

- The patient with uncontrolled atrial fibrillation with a ventricular rate over 100 beats per minute is at risk for low cardiac output caused by loss of atrial kick. The nurse assesses the patient for palpitations, chest pain or discomfort, hypotension, pulse deficit, fatigue, weakness, dizziness, syncope, shortness of breath, and distended neck veins.

64) D

- The purpose of EPS is to study the heart's electrical system. During this invasive procedure, a special wire is introduced into the heart to provoke dysrhythmias. To prepare for this procedure, the patient should remain NPO for 6 to 8 hours before the test, and all antidysrhythmics are withheld for at least 24 hours before the test to examine the dysrhythmias without the influence of medications. Because the patient's verbal responses to the rhythm changes are vital, sedation is avoided whenever possible.

65) B

- Steak sauce is high in sodium. Leafy green vegetables, any juice (except tomato or V8 brand vegetable), and sherbet are all low in sodium. Patients with CHF should monitor sodium intake.

66. The nurse is preparing to initiate an intravenous nitroglycerin drip on a patient with acute myocardial infarction. Without an invasive (arterial) monitoring line, the nurse prepares to have which piece of equipment to use at the bedside.
- defibrillator
 - pulse oximeter
 - central venous pressure (CVP) tray
 - noninvasive blood pressure monitor
67. A patient is in ventricular tachycardia, and the physician orders intravenous (IV) lidocaine (xylocaine). The nurse plans to dilute the concentrated solution of lidocaine with:
- lactated ringer's
 - normal saline 0.9%
 - 5% dextrose in water
 - normal saline 0.45%
68. A patient who recently experienced a myocardial infarction is scheduled to have a percutaneous transluminal coronary angioplasty (PTCA). The nurse plans to teach the patient that, during this procedure, a balloon-tipped catheter will:
- inflate a mesh-like device that will spring open
 - be used to compress the plaque against the coronary blood vessel wall
 - cut away the plaque from the coronary vessel wall using a cutting blade
 - be positioned in the coronary artery to take pressure measurements in the vessel
69. A nurse is planning care for a patient with heart failure. The nurse asks the dietary department to remove which item from all meal trays before delivering them to the patient.
- 1% milk
 - margarine
 - salt packets
 - decaffeinated tea
70. A patient has just been admitted to the emergency department with chest pain. Serum enzyme levels are drawn, and the results indicate an elevated serum creatinine kinase (CK)-MB isoenzyme, troponin T, and troponin I. The nurse concludes that these results are compatible with:
- stable angina
 - unstable angina
 - prinzmetal's angina
 - new-onset myocardial infarction (MI)

ANSWERS AND RATIONALE

66) D

- Nitroglycerin dilates both arteries and veins, causing peripheral blood to pool and reducing preload, afterload, and myocardial workload. This action leads to the primary side effect of nitroglycerin: hypotension. Without an arterial monitoring line, the nurse should use a noninvasive blood pressure monitor at the bedside.

67) C

- Lidocaine is dispensed in concentrated and dilute formulations for IV administration. The concentrated formulation must be diluted with 5% dextrose in water.

68) B

- In PTCA, a balloon-tipped catheter compresses the plaque against the coronary blood vessel wall. Option C describes coronary atherectomy, option A describes the placement of a coronary stent, and option D describes part of the process used in cardiac catheterization.

69) C

- Sodium restriction reduces water retention and improves cardiac efficiency. A standard dietary modification for the patient with heart failure is sodium restriction.

70) D

- Creatine kinase (CK)-MB isoenzyme is a sensitive indicator of myocardial damage. Levels begin to rise 3 to 6 hours after the onset of chest pain, peak at approximately 24 hours, and return to normal in about 3 days. Troponin is a regulatory protein found in striated muscle (skeletal and cardiac). Increased amounts of troponin are released into the bloodstream when an infarction damages the myocardium. Therefore, the patient's results are consistent with new-onset myocardial infarction (MI). Options A, B, and C all refer to angina, and these levels would not be elevated in the case of angina.

71. The nurse has applied the prescribed dressing to the leg of a patient with an ischemic arterial leg ulcer. To cover the dressing, the nurse should use which of the following methods?
- apply a kerlix roll and tape it to the skin
 - apply a large, soft pad and tape it to the skin
 - apply small Montgomery straps and tie the edges together
 - apply a Kling roll and tape the edge of the roll onto the bandage
72. A patient develops bilateral wheezes, crackles from the bases to the apices, orthopnea, and tachypnea, and the nurse notes the presence of +2 pitting edema. The nurse suspects pulmonary edema and notifies the physician. While awaiting the physician's arrival, which action does the nurse avoid?
- elevating the patient's legs
 - preparing to administer IV morphine sulfate
 - preparing to administer IV furosemide (Lasix)
 - placing the patient in the high Fowler's position
73. The nurse is caring for a patient scheduled to undergo cardiac catheterization for the first time. The nurse informs the patient that:
- The procedure is performed in the operating room.
 - initial catheter insertion is quite painful; after that, there is little or no pain
 - the patient may feel fatigued and have various aches because it is necessary to lie quietly on a hard X-ray table for about 4 hours
 - patient may feel certain sensations at various points during the procedure, such as a fluttery feeling, flushed warm feeling, desire to cough, or palpitations
74. A nurse admits a patient with myocardial infarction (MI) to the coronary care unit (CCU). Which of the following does the nurse plan to do when delivering care to this patient?
- begin thrombolytic therapy
 - place the patient on continuous cardiac monitoring
 - infuse intravenous (IV) fluid at a rate of 150 ml per hour
 - administer oxygen at a rate of 6 liters per minute by nasal cannula
75. The nurse is analyzing an ECG rhythm strip on an assigned patient. The nurse notes three small boxes from the beginning of the "P" wave to the "R" wave. The nurse records that the patient's PR interval is:
- 0.12 second
 - 0.20 second
 - 0.24 second
 - 0.40 second

ANSWERS AND RATIONALE

71) D

- With an arterial leg ulcer, the nurse applies tape only to the bandage. Tape is never used directly on the skin because it could cause further tissue damage. For the same reason, Montgomery straps cannot be applied to the skin (although they are generally intended for use on abdominal wounds anyway). Standard dressing technique includes using Kling rolls on circumferential dressings.

72) A

- Elevating the patient's legs would rapidly increase venous return to the right side of the heart and could worsen the patient's condition. The feet should be kept horizontal, or the patient may dangle at the bedside if their condition permits. Anxiety increases the oxygen demands on the heart. Morphine sulfate alleviates anxiety and induces peripheral vasodilation and is likely to be prescribed. Furosemide will be prescribed for its diuretic action. A high Fowler's position enhances thoracic capacity, allowing for improved ventilation.

73) D

- Pre-procedure teaching points include that the procedure is performed in a dimly lit cardiac catheterization room and that ECG leads are attached to the patient. A local anesthetic is administered, resulting in minimal to no pain during catheter insertion. The X-ray table is rigid and may be tilted periodically. The procedure may last up to 2 hours, and the patient may experience various sensations during catheter passage and dye injection.

74) B

- Standard interventions upon admission to the CCU as they relate to this question, include continuous cardiac monitoring and administering oxygen at a rate of 2 to 4 liters per minute unless otherwise ordered, ensure the proper insertion of an intermittent IV lock. If an IV infusion is given, it should be maintained at a rate that keeps the vein open to prevent fluid overload and heart failure. Thrombolytic therapy may or may not be prescribed by the physician. Thrombolytic agents are most effective when administered within 6 hours of the coronary event.

75) A

- Standard ECG graph paper measurements are 0.04 seconds for each small box on the horizontal axis (measuring time) and 1 mm (measuring voltage) for each small box on the vertical axis.