Practice Exam Questions

AMERICAN ASSOCIATION of CRITICAL-CARE NURSES

CSC-Adult

Cardiac Nursing Subspecialty

EXAMKILLER

Help Pass Your Exam At First Try

Total Question: 302 QAs

Question No: 1
A cardiac care nurse is explaining a triple bypass surgery and obtaining consent for the surgery. Which of the following should the nurse ensure have been explained to the patient and the family?
A. Risk involved in the surgery
B. Benefits of the surgery
C. Serious complications of surgery like stroke, myocardial infarction, or death
D. All of above
Answer: D
Explanation: The nurse should ensure that the risks, the benefits and the possible serious complications of the surgery such as stroke, myocardial infarction, or death have been explained. Hospital ethics boards have determined that this information is necessary to ensure that the patient and the patient's family are fully aware of the benefits and risks of the operation.

Question No: 2
A patient presents with post-operative hemorrhage after cardiac surgery. What initial steps should the attending nurse take?
A. Measure clotting factors stat: INR, PTT, fibrinogen, platelet count, activated clotting time
B. Correct with fresh frozen plasma, cryoprecipitate, platelets, DDAVP
C. Administer protamine to reverse heparinization
D. Give tranexamic acid bolus (50 mg/kg)
Answer: A
Explanation: The first step is to make sure the patient is normothermic. Next, measure clotting factors stat: INR, PTT, fibrinogen, platelet count, and activated clotting time. A bolus of tranexamic acid can be given if the output from the chest tube is excessive. Fresh frozen plasma, cryoprecipitate, platelets, DDAVP, or protamine to reverse heparinization can all be used as needed. Initiate the transfusion reaction protocol if a transfusion reaction is suspected.

Question No: 3
A patient known to have AF (atrial fibrillation) presents with acute pain in his left lower limb and over the course of several hours he experiences a loss of sensation in the area and the limb becomes numb and cold. What is the first treatment the nurse should take?
A. Send the patient for arteriography
B. Immediate heparinization
C. Prepare the patient for embolectomy
D. Identify and treat the underlying cause
Answer: B
Explanation: A patient with AF who has evidence of circulatory compromise, e.g., pain, loss of sensation, etc., should be given a 5000 IU bolus of heparin, IV. This should be followed by a continuous IV infusion of heparin to maintain the aPTT at 1.5-2.5 times the control.

Question No: 4

A patient presents with post-operative hemorrhage after undergoing cardiac surgery. Which of the following should prompt the attending nurse to consult the cardiothoracic surgeon for surgical exploration?
A. A pulse rate > 100
B. Excess mediastinal tube drainage
C. Patient with history of bleeding disorders
D. Patient who has undergone multiple surgeries
Answer: B
Explanation: Excess mediastinal tube output is an indication of bleeding and the need for surgical exploration of post-operative hemorrhage.

Question No: 5
A patient recovering from CABG surgery develops renal failure. What measures should the attending nurse take to maintain urine output?
A. Administer IV fluids to hydrate the patient
B. Send the patient for hemodialysis
C. Low-dose dopamine infusion, furosemide by IV bolus or continuous infusion.
D. Send the patient for peritoneal dialysis
Answer: C
Explanation: The attending nurse should administer low-dose dopamine (1-3 µg/kg/h) and furosemide by IV bolus or continuous infusion. Ethacrynic acid, an IV infusion of mannitol, and IV fluids as needed can also be used after assessing the volume status and cardiac function of patient.

Question No: 6
A patient is scheduled to undergo CABG surgery. Which of the following tests would the nurse not order as a part of pre-operative assessment?
A. CBC, PTT, INR, electrolytes, glucose, BUN, creatinine
B. Stool for occult blood
C. PA and lateral CXR
D. ECG to diagnose heart rhythm abnormalities and myocardial ischemia
Answer: B
Explanation: The nurse would not order a test for occult blood in the stool; bleeding would assessed be using the CBS and coagulation studies. Pre-operative tests should include CBC, PTT, INR, electrolytes, glucose, BUN, creatinine, and other blood tests as needed. A urinalysis, PA and lateral CXR (and possibly a CT of the chest in cases of re-operations), and an ECG should also be done.

Question No: 7
A patient is scheduled to have mitral valve replacement surgery. He has been taking warfarin therapy because he has atrial fibrillation (AF). What changes to the patient's anticoagulant therapy should the nurse consider?
A. Stop warfarin on the day of surgery
B. Stop warfarin 4-5 days before surgery
C. Stop warfarin 4-5 days prior to surgery; give a heparin product prior to surgery.
D. Continue warfarin therapy
Answer: C
Explanation: The nurse should consider stopping warfarin 4-5 days prior to the surgery and administering a

heparin product preoperatively as a “bridge” if there is a high risk of thrombosis (e.g., if the patient has a large left atrium, atrial fibrillation, or a mitral valve prosthesis).

Question No: 8
A patient has undergone aortic valve replacement surgery. An EKG done post-operatively demonstrates a junctional rhythm. What parameters should the nurse assess before consulting a cardiologist to consider A-V sequential pacing?
A. Rule out digoxin toxicity and myocardial ischemia
B. Rule out hypomagnesemia
C. Make sure that patient is not hypokalemic
D. All of the above
Answer: A
Explanation: If a junctional rhythm is present, the nurse should check for the presence of digoxin toxicity and/or myocardial ischemia. A junctional rhythm does not need to be treated if the patient is asymptomatic.

Question No: 9
A patient presents to an emergency room with acute pain in abdomen; there is a high degree of suspicion that he has a ruptured abdominal aortic aneurysm. What measures should be initiated immediately?
A. Send the patient for abdominal CT scan
B. Start resuscitation after ensuring immediate vascular access
C. Start blood transfusion after grouping and cross-matching
D. Immediate laparotomy
Answer: B
Explanation: If there is a strong suspicion that the patient has a ruptured abdominal aortic aneurysm, start initial resuscitation and obtain vascular access. Typing and cross matching can be done next, followed by surgery.

Question No: 10
A 64-year-old male patient was scheduled to undergo CABG surgery after a coronary angiogram. During pre-cardiac surgery education, the nurse should explain to the patient that the objective of the bypass surgery is:
A. Revascularization of selected area of myocardium
B. Complete revascularization of the myocardium
C. Correction of the abnormalities of the coronary arteries
D. Removal of the diseased part of the coronary artery
Answer: A
Explanation: The nurse should explain to the patient that the objective of CABG surgery is revascularization of selected areas of the myocardium. Arteries with severe stenoses (> 70%) are bypassed, except those of small caliber (<1mm in diameter).

Question No: 11
A nurse is taking care of a 50-year-old patient who has undergone mitral valve replacement surgery. The patient develops a perioperative myocardial infarction, and the doctor orders a continuous IV infusion of nitroglycerin. Which of the following is the most important action to be taken by this nurse?

A. Start the medication using an infusion pump
B. Frequent monitoring of urine output
C. Frequent monitoring of blood pressure
D. Measure the patient's serum potassium
Answer: C
Explanation: The most important nursing action in this situation would be regular monitoring of the patient's blood pressure. Hypotension is a common side effect of IV nitroglycerin.

Question No: 12
A patient who has undergone mitral valve replacement surgery complains of bleeding from the surgical incision. Which of the following medications should the attending nurse be prepared to administer to the patient?
A. Vitamin K
B. Vitamin C
C. Protamine Sulfate
D. Coumadin
Answer: C
Explanation: The nurse should be prepared to administer protamine sulfate. Post-operative bleeding can also be corrected with fresh frozen plasma, Vitamin K, cryoprecipitate, platelets, or DDAVP. An IV bolus of tranexamic acid can be given if there is excessive drainage from the chest tube. .

Question No: 13
A patient presents to an emergency room after trauma to his left lower limb. Which of the following is the most important P of the 6 Ps that are used to assess the severity of trauma to an extremity?
A. Pain
B. Paralysis
C. Pulselessness
D. Pallor
Answer: B
Explanation: The most important of the 6 Ps (pain, paralysis, pallor, parasthesia, pulselessness, and poikilothermia)is paralysis because it indicates a non-viable limb. Pain is absent in 20% of cases because of prompt onset of anesthesia and paralysis. Pallor is replaced by mottling and cyanosis within a few hours. Parasthesia is an early sign of trauma. Do not expect all of the 6 Ps to be present, and do not rely on assessment of pulses.

Question No: 14
A patient presents with acute arterial occlusion of one of his upper limbs. Which of the following drugs should the nurse prepared to administer to the patient?
A. Clopidogrel
B. Heparin
C. Warfarin
D. Urokinase
Answer: B
Explanation: The nurse should be prepared to administer a bolus dose of heparin, followed by a continuous

IV infusion.

Question No: 15
The patient was on cardiopulmonary bypass while undergoing CABG surgery. What should be the first parameter the nurse should assess before weaning the patient from cardiopulmonary bypass?
A. Serum magnesium
B. Pulmonary status
C. Body temperature
D. Urine output
Answer: C
Explanation: The first parameter the nurse should assess is the patient's body temperature. Attaining normothermia is the first step in preparation for weaning a patient from cardiopulmonary bypass. Other important assessment steps/parameters can be remembered with the mnemonic LAMPS: Laboratory data, Anesthesia, Monitors (cardiac and pulmonary) pump, and patient Support.

Question No: 16
A patient with history of arterial trauma presents to emergency with severe pain in right lower limb. Which of the following findings during the nursing assessment indicates arterial occlusion?
A. Paraesthesia
B. Paralysis
C. Pulselessness
D. All of above
Answer: D
Explanation: All of the findings listed above indicate arterial occlusion and the nursing assessment for arterial occlusion should check for each one, as well as for the presence/absence of all of the other 6 Ps: pallor, paresthesia, paralysis, pain, pulselessness, and poikilothermic.

Question No: 17
A nurse is planning to give pre-procedure teaching to a patient about the benefits of percutaneous transluminal coronary angioplasty (PTCA). Which of the following is the most important for the patient to be taught?
A. The stent helps to increase the coronary blood flow
B. The procedure is done through distal arteries.
C. Balloon pressure decreases plaque size and stretches the vessel.
D. The goal is to increase blood flow by reducing plaque build-up.
Answer: D
Explanation: The most important fact for the patient to know is that the goal of PTCA is to increase blood flow to the coronary arteries by reducing plaque build-up. The procedure involves the use of a catheter introduced through the femoral, brachial, or radial artery into the diseased coronary artery and balloon pressure is applied to the area of plaque formation to decrease plaque size and/or stretch the vessel wall. A stent is often placed after opening the vessels.

Question No: 18
A 60-year-old patient had undergone embolectomy for arterial emboli. What anticoagulant drug

modification should the attending nurse do post-operatively?
A. Stop heparin and start aspirin.
B. Continue heparin infusion only
C. Continue heparin post-operatively and start warfarin
D. Stop all anticoagulant medication after surgery
Answer: C
Explanation: The attending nurse should continue heparin in the post-operative period and start warfarin post-operatively when ordered to do so.

Question No: 19
A patient with venous insufficiency has questions about the anatomy of venous system. What are the important parts of venous system that the nurse should explain?
A. The superficial venous system, communicating venous system, deep venous system, and venous valves
B. The deep venous system
C. The superficial venous system
D. The valves
Answer: A
Explanation: The nurse should tell the patient about all the parts of venous system. The venous system is divided into 4 general areas: the superficial venous system, the communicating venous system,, the deep venous system, and the venous valves.

Question No: 20
A patient is being discharged from the hospital after undergoing PTCA. What advice should the nurse give to the patient about follow up tests?
A. Repeat INR every month for 6 months
B. Cardiac stress testing to be performed 2-6 months after the procedure
C. Repeat cardiac enzymes every month for 6 months
D. Repeat cardiac enzymes, hematocrit, INR every month
Answer: B
Explanation: The nurse should inform the patient that cardiac stress testing should be done 2-6 months post-procedure. Prior to patient release, perform a physical assessment and perform laboratory tests such as hematocrit, potassium level, and serum creatinine level

Question No: 21
The nurse is going to assist the interventionist during PCTA. Which drugs should the nurse be prepared to administer?
A. Heparin, streptokinase
B. Heparin, nitroglycerin, abciximab
C. Heparin, warfarin
D. Heparin, warfarin, aspirin
Answer: B
Explanation: The nurse should be prepared to administer heparin, nitroglycerin, and/or a glycoprotein IIb/IIIa receptor inhibitor such as abciximab.

Question No: 22
A patient is scheduled to undergo coronary atherectomy. What should the nurse explain to patient about the procedure during pre-procedure teaching?
A. The procedure is done via the femoral, brachial or radial artery
B. Coronary atherectomy uses a grinding/cutting tool to clear plaque from diseased coronary arteries. It can be combined with percutaneous transluminal coronary angioplasty and/or a stent procedure
C. A grinding/cutting tool is used to clear plaque from diseased coronary arteries
D. Tell the patient about different types of atherectomies
Answer: B
Explanation: The nurse should explain to the patient that coronary atherectomy uses a grinding/cutting tool to clear plaque build-up within diseased coronary arteries. An atherectomy can be done in combination with percutaneous transluminal coronary angioplasty and/or stent procedure. The catheter with the grinding/cutting tool is introduced through the femoral, brachial, or radial artery.

Question No: 23
What are the possible post-operative complications of PCTA of a lower extremity that a nurse must be aware of?
A. Myocardial infarction, angina
B. Vasospasm, thrombus formation, arterial dissection, vessel perforation, compartment syndrome
C. Aneurysmal rupture, dissection of the aorta
D. Circulatory shock, renal failure
Answer: B
Explanation: The nurse must be aware of possible post-operative complications such as vasospasm, thrombus formation, arterial dissection, vessel perforation, and compartment syndrome. Restenosis and sudden death are also possible. Depending on the patient's overall health, allergies, and comorbid conditions, other complications may occur, as well.

Question No: 24
What medications should the nurse give to a patient being prepared for PCTA of the carotid artery?
A. Heparin, atropine, nifedipine
B. Heparin, aspirin, clopidogrel
C. Heparin, warfarin, aspirin
D. Heparin, clopidogrel, warfarin
Answer: A
Explanation: The nurse should give heparin, atropine, and nifedipine to a patient being prepared for PCTA of the carotid artery.

Question No: 25
A nurse is counseling a patient who has had balloon valvuloplasty of the mitral valve. Which of the following is the correct post-operative follow-up interval and post-operative test?
A. Consult the clinician 1 month post-procedure: an echocardiogram 3 to 6 months post-procedure
B. Consult the clinician 1 week post-procedure: an echocardiogram 3 to 6 months post-procedure
C. Consult the clinician 1 week post-procedure: an echocardiogram 1 month post-procedure
D. Consult the clinician 1 month post-procedure: an echocardiogram 1 month post-procedure

Answer: B
Explanation: After undergoing mitral balloon valvuloplasty, patients should followup with the clinician 1 week after the procedure and should undergo an echocardiogram 3 to 6 months after the procedure.

Question No: 26
Which of the following is the most accurate information to tell a patient about how artificial pacemakers work?
A. Artificial pacemakers generate electricity
B. Artificial pacemakers provide electrical stimulation to the heart when its own pacemaker cannot meet the metabolic needs of the body
C. Artificial pacemakers help the heart muscles to contract
D. Artificial pacemakers increase the cardiac output
Answer: B
Explanation: The most accurate statement the nurse should use to explain how an artificial pacemaker works is that a pacemaker provides electrical stimulation to the heart when its own pacemaker cannot meet the metabolic needs of the body. This occurs when the intrinsic heart rate is not able to provide enough cardiac output.

Question No: 27
Which of the following signs and symptoms would the attending nurse expect to observe in a patient who has a ruptured aneurysm?
A. Pain abdomen, hypertension, bradycardia
B. Hypotension, tachycardia, nausea, vomiting, shortness of breath, chest pain/lower back/abdominal pain
C. Headache, nausea, vomiting, vertigo
D. Hypertension, chest pain, syncope
Answer: B
Explanation: The nurse should expect to observe hypotension, tachycardia, nausea, vomiting, shortness of breath, chest pain, and lower back/abdominal pain.

Question No: 28
What lifestyle modifications should the nurse recommend to a patient who has atherosclerotic disease and dyslipidemia?
A. Restriction of physical activity, dietary supplementation, smoking cessation
B. Physical exercise, healthy diet, smoking cessation
C. Physical exercise, healthy diet, dietary supplementation, smoking cessation
D. Restriction of physical activity, diet rich in saturated fat, smoking cessation
Answer: B
Explanation: Then nurse should recommend physical exercise, healthy diet, and smoking cessation. Treatment of comorbid conditions such as diabetes and hypertension should be considered, as well.

Question No: 29
Which of the following is true as per the code of ethics for nurses?
A. Nurses are moral agents when providing care
B. Nurses keep person receiving care, families, and employers informed about potential and actual change to delivery of care

C. Nurses respect the wishes of capable persons to decline to receive information about their health condition
D. All of the above
Answer: D
Explanation: The nurses' code of ethics stipulates directives about their acting as moral agents and as information resources, as well as stipulating the manner of respecting patient wishes.

Question No: 30
The 3 domains of adult learning include which of the following?
A. Cognitive learning, sensory learning, motor learning,
B. Cognitive learning, psychomotor learning, affective learning
C. Psychomotor learning, psychosocial learning, behavioral learning
D. Cognitive learning, psychosocial learning, motor learning
Answer: B
Explanation: The 3 domains of adult learning include cognitive learning, psychomotor learning, and affective learning. Each type of learning impacts how an individual addresses adult learning and affects the knowledge the individual can acquire. Cognitive learning is defined as the ability to acquire knowledge or intellectual information through acquisition of facts, data, or by making decisions or drawing conclusions. Affective learning is defined as the ability of an individual to change their attitude, feeling, emotions, or interests toward a particular event or idea. Psychomotor learning is defined as an individual's ability to master physical or motor skills and/or activities.

Question No: 31
The nurse enters the room of a patient who has otosclerosis and significant hearing loss. What is the most appropriate action for the nurse?
A. Speak loudly immediately after entering the room
B. Speak to the patient directly in a simple language
C. Announce his/her presence in a normal voice and explain what he/she is doing
D. Sit/stand close to the patient and speak slowly and clearly
Answer: D
Explanation: The most appropriate action for the nurse is to speak slowly and clearly. He/she should get the individual's attention prior to speaking and use simple sentences. Facing the patient and standing in close proximity are also very effective when teaching a patient who has reduced hearing acuity.

Question No: 32
A nurse is giving an educational pamphlet to a patient with reduced visual acuity. What is the most appropriate way to print the pamphlet?
A. Letters in normal size font, printed in black ink on a white paper
B. Letters in large font, printed in black ink on a white paper
C. Letters in large font, printed with black ink on yellow colored paper
D. Letters in large font, printed with a contrast color ink on paper of any color
Answer: B
Explanation: The most appropriate way to print the pamphlet is with large font letters, using black ink on white paper. In reading documents, the letters should be in large font and of a contrasting color. Black ink on a white paper is the best for individuals with vision problems.

Question No: 33
Which of the following examinations are parts of the post-operative neurological assessment of a patient who has undergone carotid endarterectomy during post-op period?
A. Level of consciousness, response to verbal stimuli, orientation to time and place
B. Level of consciousness, response to verbal stimuli, sensation to touch
C. Level of consciousness, sensation, motor strength and reflexes, pupil size and reaction to light
D. Level of consciousness, vibration and position sense, function of the vocal cords
Answer: C
Explanation: The post-operative neurological assessment of a patient who has undergone carotid endarterectomy should include examination of level of consciousness, sensation, motor strength and reflexes, and pupil size, and reaction to light. The assessment should be made every 1 to 2 hours after the surgery.

Question No: 34
What should be the focus of the team taking pre-operative care of a patient who will be undergoing cardiac transplant surgery?
A. Immunosuppression, acute renal failure, arrhythmia, left ventricular dysfunction
B. Immunosuppression, acute renal failure, tachycardia, right ventricular dysfunction
C. Immunosuppression, acute renal failure, bradycardia, and right ventricular dysfunction
D. Immunosuppression, cardiac failure, left ventricular dysfunction, arrhythmia
Answer: C
Explanation: The team preparing a patient for cardiac transplantation should focus on immunosuppression, acute renal failure, bradycardia, and right ventricular dysfunction.

Question No: 35
According to current guidelines, to which of the following patients should the nurse explain the routine screening for aneurysms?
A. 70-year-old non-smoker male patient
B. 62-year-old male patient whose father died of aneurysmal rupture
C. 65-year-old diabetic female patient
D. 55-year-old male patient with family history of aneurysm
Answer: B
Explanation: Patients at high risk for aneurysms should be followed regularly by a cardiothoracic, vascular, or neurological surgeon. Current guideline recommendations suggest that men who are 65 to 75 years old and are ex-smokers should be checked for aneurysms routinely. Men aged 60 and older with a family history of aneurysms should also consider routine screening.

Question No: 36
A patient is being released from hospital after treatment of congestive heart failure. His son is anxious to know if the progression and severity of the disease can be prevented by lifestyle modification or prophylactic medications. What advice should the attending nurse give him?
A. Avoid alcohol and smoking, maintain proper blood pressure, reduce salt and fluid intake, and maintain an active lifestyle
B. Treatment of co-morbidities can significantly help prevent progression of disease

C. Avoiding alcohol and smoking and diet containing low sodium and fat are enough
D. Nothing needs to be done except for maintaining an active lifestyle
Answer: B
Explanation: The nurse should advise the son that treatment of co-morbidities can significantly help prevent progression of the disease. People with congestive heart failure should avoid alcohol and drug consumption, avoid smoking, maintain proper blood pressure, eat a diet low in saturated fats and sodium, reduce fluid intake, treat other co-morbidities, and maintain an active lifestyle.

Question No: 37
A 75-year-old male who has diabetes presents to emergency with sudden onset of chest pain radiating to the arms. The pain has persisted for 2 hours; he is also diaphoretic. His EKG shows ST-T elevation changes in precordial leads. Which of the following medications would be the first ones the nurse should be prepared to administer to this patient?
A. Streptokinase, nitroglycerin, heparin, morphine
B. Streptokinase, angiotensin receptor blocker
C. Heparin, ACE inhibitor, furosemide
D. Tirofiban, hydrochlorothiazide, clopidogrel
Answer: A
Explanation: The nurse should be prepared to administer streptokinase, nitroglycerin, heparin, and morphine. This patient is having an acute ST segment elevation myocardial infarction, and these are the drugs of choice. Other medications that may be used include aspirin, beta-adrenergic blockers such as metoprolol and esmolol, thrombolytic agents such as alteplase, anistreplase and tenecteplase, platelet aggregation inhibitors such as clopidogrel, eptifibatide and tirofiban, and ACE inhibitors.

Question No: 38
A patient is has been diagnosed as having DVT. Which of the following set of investigations should the nurse order to establish the cause of his condition?
A. CT angiogram, impedance plethysmography
B. Platelet count, bleeding and clotting time, prothrombin time
C. Antithrombin III, protein C, protein S, factor V Leiden, prothrombin 2020a mutation, lupus anticoagulant and anticardiolipin antibodies
D. Tests for endothelial dysfunction, venous doppler
Answer: C
Explanation: Blood tests to evaluate the cause of DVT include antithrombin III, protein C, protein S, factor V Leiden, prothrombin 2020a mutation, disseminated intravascular coagulation (DIC) test, and lupus anticoagulant and anticardiolipin antibodies.

Question No: 39
After undergoing aortic valve replacement, a 70-year-old male complains of palpitations and dizziness. The nurse records his blood pressure as 110/70 mm Hg. The nurse also records an EKG. Which of the following EKG findings would prompt the nurse to consider a diagnosis of atrial fibrillation?
A. Presence of abnormal P waves with irregular R-R intervals
B. Absent P waves with regular R-R interval
C. Absent P waves, irregular R-R interval, and fibrillatory waves

D. Inverted P waves, regular R-R interval
Answer: C
Explanation: EKG findings which would prompt the nurse to consider a diagnosis of atrial fibrillation would be absent P waves, an irregular R-R interval, and fibrillatory (f) waves of variable shape and amplitude. Atrial fibrillation can occur as an acute condition or a chronic condition.

Question No: 40
A patient who has hypertension states that after eating he experiences dizziness, fatigue, syncope/ fainting, mental confusion, and lightheadedness. The nurse records a fall in blood pressure after the patient finishes eating. What advice should the nurse give the patient about lifestyle modification to help this condition?
A. Stop taking all antihypertensive medications
B. Exercise after taking meals
C. Eating smaller meals low in carbohydrates
D. Stay in prone position after meals
Answer: C
Explanation: The nurse should advise the patient to eat smaller meals that are low in carbohydrates. Postprandial hypotension is a condition that involves a sudden drop in blood pressure after eating. It typically affects elderly individuals with other cardiovascular comorbid conditions or neurological disorders. Symptoms of the condition include dizziness, fatigue, syncope/fainting, mental confusion, and/or lightheadedness. Postprandial hypotension is more common among individuals with high blood pressure or autonomic nervous system disorders. Lifestyle modifications such as eating small, frequent meals low may reduce symptoms. Also, lowering the doses of blood pressure medications may decrease the onset of postprandial hypotension.

Question No: 41
A patient of peripheral arterial disease is being released from hospital. What advice should the nurse give to the patient about foot care?
A. Wash and moisturize feet daily; wear thick socks and comfortable shoes
B. Clean the foot by rubbing with pumice stone
C. Clean feet using soft scrubber and keep dry
D. Clean feet and regularly walk barefoot in morning
Answer: A
Explanation: The nurse should instruct the patient to wash her feet daily, moisturize them, and wear thick socks and comfortable shoes. Other foot care measures include promptly treating fungal infections, trimming toe nails carefully to avoid cuts, avoiding walking barefoot, and have a physician or nurse exam sores and open wounds on the feet.

Question No: 42
The nurse calculates the ankle-brachial index (ABI) of a patient as 0.65. The patient wants to know the significance of this value. What is the correct answer given by the nurse?
A. Ankle-brachial index gives the percentage of blockage in the artery of foot
B. Ankle-brachial index is calculated to estimate the degree of arterial occlusion in patients suspected of having peripheral arterial disease. Values between 0.5 and 0.8 suggest moderate degree of peripheral arterial disease
C. Ankle-brachial index gives the estimate of power in the muscles of lower limb

D. Ankle-brachial index gives an idea about the oxygenation of tissues
Answer: B
Explanation: An ABI of 0.65 represents a moderate degree of peripheral arterial disease. The ABI represents a ratio of the blood pressure measured in the ankle divided by the blood pressure measured in the arm. An abnormal ABI is defined as an index <0.90. Values between 0.8 and 0.9 suggest some arterial disease. Values between 0.5 and 0.8 suggest moderate arterial disease. Values less than 0.5 are suggestive of severe arterial disease.

Question No: 43
What are the investigations a nurse should order/perform for a patient who recently had implantation of a pacemaker?
A. Exercise ECG testing, echocardiogram, CT scan of chest
B. Echocardiogram, coronary angiography, chest x-ray
C. Exercise ECG testing, stress echocardiogram, chest x-ray
D. Electrocardiogram, echocardiogram, look for swelling, physical assessment
Answer: D
Explanation: The nurse should order an electrocardiogram and an echocardiogram, should perform a physical assessment, and look for swelling at the incision site. The nurse should also check peripheral blood flow and evaluate for the presence of cardiac pain.
Prior to patient release, clinicians should also assess the patient's heart sounds and check laboratory tests such as hematocrit, potassium levels, serum creatinine level, and cardiac enzymes. A chest x-ray should also be performed before and after pacemaker placement.

Question No: 44
A patient is being released after pacemaker implantation. What instruction should the nurse give the patient about follow-up?
A. Patients should be instructed to followup 1 week after permanent pacemaker placement and then every month to check programming and setting of the device
B. Patients should be instructed to followup with 1 week after permanent pacemaker placement and then every 3 to 6 months to check programming and setting of the device
C. Patients should be instructed to followup 1 week after permanent pacemaker placement and then every 3 to 6 months to check battery status of the device
D. Patients should be instructed to followup 1 week after permanent pacemaker placement and then every month to check battery status of the device
Answer: B
Explanation: The nurse should instruct the patient to followup with their practicing clinician 1 week after permanent pacemaker placement and then followup every 3 to 6 months to check programming and setting of the device. Elderly patients should be checked on a regular basis for risk of infection, heart sounds, and cardiac risk factors. Patients at risk for other cardiovascular complications should be monitored on regular basis.

Question No: 45
Which leadership style involves minimal guidance from a leader and provides little feedback to team members?
A. Autocratic

B. Laissez-faire
C. Transactional
D. Transformational
Answer: B
Explanation: The laissez-faire leadership style involves minimal guidance from a leader, and team members receive little feedback. Laissez- faire is a French phrase that literally means “let people do as they choose.” Leadership styles include autocratic, participative, laissez-faire, transactional, and transformational. Autocratic leadership uses power to influence members of a team. Participative leadership uses a democratic process for decisions among team members. Transactional leadership focuses on daily activities and is comfortable with the status quo. Transformational leadership involves a vision and commitment to meet a team’s goals.

Question No: 46
Which of the following statements correctly represents the significance of outcome evaluation?
A. It helps in better recovery and follow-up of the patient
B. Outcome evaluation is often useful in evaluating the effectiveness of interventions and identifies areas of improvement
C. Outcome evaluation is a useful tool for ensuring regular follow-up of patient
D. Outcome evaluation is useful in identifying factors which influence recovery
Answer: B
Explanation: The significance of outcome evaluation is in evaluating the effectiveness of interventions and identifying areas that need improvement. The process is used to evaluate the patient’s status, evaluate effectiveness of interventions, and identify areas of improvement. Commonly used patient outcomes include morbidity, mortality, hemodynamic parameters, laboratory values such as blood sugar, lipid levels, and prothrombin time, symptoms such as nausea, vomiting, pain, fatigue, angina, anxiety and depression, and functional status. Commonly used practicing clinician parameters include change in knowledge or skill level and compliance with patient standards. Commonly used system outcomes include service utilization, length of hospital stay, and cost of care or services. Outcome evaluation is often used to identify factors associated with complications post cardiovascular intervention.

Question No: 47
In which leadership style is power used to influence team members?
A. Laissez-faire
B. Autocratic
C. Transactional
D. Transformational
Answer: B
Explanation: The autocratic leadership style uses power to influence team members. . Other leadership styles include participative, laissez-faire, transactional, and transformational. Participative leadership uses a democratic process for decisions among team members. Laissez-faire leadership involves minimal guidance from a leader and provides little feedback to team members. Transactional leadership focuses on daily activities and is comfortable with the status quo. Transformational leadership involves a vision and commitment to meet a team’s goals.

Question No: 48

Team causes, team processes, team effectiveness, and team building are variables of which team building models?
A. Cognitive motivational model of team effectiveness
B. Traditional model of team effectiveness
C. Interventional model of team effectiveness
D. Philosophical model of team effectiveness
Answer: A
Explanation: The cognitive motivational model of team effectiveness uses team causes, team processes, team effectiveness, and team building. The traditional model of team effectiveness views the team as components of a whole. The components include team building processes and team effectiveness. The cognitive motivational model of team effectiveness views the team as a series of interdependent variables such as team causes, team processes, team effectiveness, and team building.

Question No: 49
A patient is wearing a Holter monitor. What instructions should the nurse give to the patient during monitoring?
A. Stop all his regular medications
B. Maintain an activity diary of his physical activities
C. Restrict physical activity
D. Do strenuous exercise
Answer: B
Explanation: While wearing a Holter monitor, patients should maintain an activity diary so that any abnormality can be linked to this activity. Conversely, the diary may demonstrate that no abnormality occurs with certain activities. Patients should continue with prescribed medications and carry out normal activities since the primary purpose of a Holter monitor is to assist in diagnosis and to determine triggers for abnormal electrocardiogram readings. The monitor should be used during the night as some cardiac abnormalities may occur during sleep.

Question No: 50
A nurse reviews the results of the laboratory examinations of a client admitted due to crushing left-sided substernal chest pain. The nurse determines that which of the following findings supports a diagnosis of acute myocardial infarction?
A. Level of LDH rises within the first 24 hours of MI
B. Myoglobulin level rises after the first 24 hours
C. Normal CK-MB within the first 24 hours
D. Total creatine kinase rises within 24 hours after cardiac damage
Answer: D
Explanation: Total creatine kinase rises within 24 hours after damage of cardiac tissue. The level of LDH rises after the first 24 hours, whereas myoglobin level increases within 2 to 3 hours and is expected to return to normal within 24 to 36 hours. CK-MB rises about 3 to 4 hours after the onset of chest pain.

Question No: 51
The nurse is assessing the tests of a patient with a diagnosis of acute right-sided heart failure. What parameter would be elevated in right-sided heart failure?
A. Central venous pressure (CVP)

B. Cardiac output
C. Left-ventricular end-diastolic pressure
D. Pulmonary capillary wedge pressure (PCWP)
Answer: A
Explanation: When looking at the parameters for a patient with a diagnosis of right-sided heart failure, the CVP would be elevated. The CVP describes the amount of blood that is returning to the heart and is a measure of the pressure of the blood in the thoracic vena cava.

Question No: 52
The nurse is evaluating the arterial blood oxygenation level on a patient who had a myocardial infarction 2 days ago. What would be the minimal oxygenation saturation level that would reflect adequate oxygen supply to the tissues?
A. 88%
B. 90%
C. 92%
D. 95%
Answer: B
Explanation: The minimal oxygenation saturation that would reflect adequate oxygen supply to the tissues is 90%. In an arterial blood gas reading, the measurement of oxygen tension in the arterial blood (PaO2) needs to be greater than 80 mm Hg.

Question No: 53
Constant positive airway pressure (CPAP) is a ventilator mode that provides positive pressure when the patient is breathing spontaneously. A nurse notices that the constant positive airway pressure is more than 10 cm H20. What problems could this cause?
A. Decreased blood pressure
B. Increased blood pressure
C. Increased risk of respiratory distress
D. Decreased ability to regain lung strength
Answer: A
Explanation: A CPAP of more than 10 cm H20 pressure could cause an increase in the intrathoracic pressure, negatively affecting the patient's venous return. In turn, this decreases the cardiac output and blood pressure.

Question No: 54
You are caring for a 47-year-old female who has been admitted to the cardiac care unit. On your rounds you notice that her mean arterial blood pressure (MAP) is decreasing. What is the mean arterial blood pressure?
A. The systolic pressure
B. The point of disappearance of the sounds
C. The average pressure in the circulatory system
D. The increase in the cardiac output
Answer: C
Explanation: The MAP is a measure of the average pressure in the circulatory system. It is a means of seeing if the patients' organs are being perfuse appropriately: a MAP of at least 60 mmHg is required for organ perfusion.

Question No: 55
What tests should be performed to evaluate a patient after PCTA?
A. Electrocardiogram, echocardiogram, hematocrit, serum creatinine
B. Electrocardiogram, echocardiogram, cardiac enzymes
C. Electrocardiogram, echocardiogram, physical assessment, monitoring of peripheral blood flow
D. Physical assessment and evaluation of cardiac pain
Answer: C
Explanation: An electrocardiogram, echocardiogram should be performed after PCTA, as well as a physical assessment and monitoring of peripheral blood flow.

Question No: 56
A nurse is explaining the post-operative follow-up procedure to a patient who has undergone carotid endarterectomy. Which of the following are the correct instructions?
A. 1 week post-procedure and then follow-up after 6 months
B. 1 week post-procedure and then follow-up after 1 month
C. 1 week post-procedure and then follow-up after 1 month in first month and then after 3 months
D. 1 week post-procedure and then follow-up after 3 months
Answer: D
Explanation: The correct instruction for these patients is to follow-up with their practicing clinician 1 week after the procedure and then follow-up in 3 months.

Question No: 57
The nurse is recording blood pressure and counting pulse rate of a patient who uses cocaine. What is the expected finding in this patient?
A. Hypertension and decreased heart rate
B. Hypertension and increased heart rate
C. Hypotension and increased heart rate
D. Hypotension and decreased heart rate
Answer: B
Explanation: Cocaine increases the heart rate and the blood pressure; it is a sympathomimetic. Cocaine can also cause chest pain that may mimic a myocardial infarction. Cocaine causes coronary and peripheral vasoconstriction; this results in hypertension and episodes of cardiac ischemia that may cause infarcts. In some cases, multiple infarcts may occur even if the coronary arteries are normal.

Question No: 58
A child with aortic stenosis has aortic regurgitation, and the physician has recommended valve replacement surgery. His parents want to know which aortic valve prosthesis is best for their child. What type of valve would be best in this case?
A. Mechanical valve
B. Bioprosthetic valve
C. Pulmonary autograft
D. Aortic homograft
Answer: C

Explanation: A pulmonary valve autograft is best for children and young adults who have aortic stenosis as the patients will not require long-term anticoagulation. The Ross procedure is the commonly performed operation that uses this technique: the patient's own pulmonary valve is used to replace the diseased aortic valve.

Question No: 59
Which surgical procedure is used as a bridge to aortic valve replacement surgery in critically ill patient with end-stage aortic stenosis?
A. Commissurotomy
B. Balloon valvuloplasty
C. Aortotomy
D. Debridement
Answer: B
Explanation: Balloon valvuloplasty is done for critically ill patients with end-stage aortic stenosis as a “bridge” to aortic valve replacement. Decalcification/debridement is considered in patients with mild to moderate aortic stenosis in whom the primary indication for surgery is coronary artery disease. Commissurotomy is useful in a small percentage of patients with aortic rheumatic valve disease with a trileaflet valve and minimal to no calcification.

Question No: 60
A pregnant patient is diagnosed with mitral stenosis. An echocardiogram shows that the valve cusps are pliable, there is minimal chordal thickening, and no subvalvular thickening or calcification. Which treatment option is suitable for her?
A. Open mitral commissurotomy
B. Percutaneous balloon valvuloplasty
C. Medical management
D. Valve replacement
Answer: B
Explanation: The best option for this patient with mitral stenosis, good leaflet pliability, minimal chordal thickening, and good subvalvular function is percutaneous balloon valvuloplasty. This procedure is considered suitable for pregnant patients who have mitral stenosis.

Question No: 61
An 80-year-old male who has diabetes is scheduled for CABG surgery. There is a 70 % obstruction in the left main coronary artery, a 60% obstruction in the right coronary artery, and depressed ventricular function. Which of the following is not a factor that increases this patient’s risk for mortality associated with CABG surgery?
A. Older age
B. Left main disease
C. Diabetes
D. Male gender
Answer: D
Explanation: Numerous risk factors for mortality after CABG surgery have been identified in several major studies, but male gender is not one of them. In decreasing order of significance these risk factors are:
- Urgency of surgery (emergent or urgent)

- Reoperation
- Older age
- Poor ventricular function
- Female gender
- Left main coronary artery disease

Others risk factors include catastrophic conditions (cardiogenic shock, ventricular septal rupture, ongoing CPR), dialysis-dependent renal failure, end-stage COPD, diabetes, cerebrovascular disease, and peripheral vascular disease.

Question No: 62
Why is cardioplegia used during cardiac surgery?
A. It provides a bloodless field for surgery
B. Stopping the heart facilitates precise surgical technique
C. It reduces the oxygen demand of the heart by almost 90%
D. It allows the anesthetic medications to work on heart
Answer: C
Explanation: Cardioplegia is used to stop the heart; this reduces the oxygen demand of the heart nearly 90%. Hypothermia is also used to further reduce myocardial metabolism.

Question No: 63
What are the contraindications of percutaneous transluminal angioplasty of the lower extremity?
A. Hypertensive patients who have poor ventricular function
B. Dyslipidemia
C. Patients who are medically unstable or have diabetes, an arterial occlusion that has been present for a long time, poor distal run off
D. Status post coronary angioplasty
Answer: C
Explanation: Percutaneous transluminal angioplasty of the lower extremity is contraindicated in patients who are medically unstable, if the arterial occlusion that has been present for a long time, if there is poor distal run off, or in patients who have diabetes.

Question No: 64
Which of the following is the correct follow-up protocol for a patient who has had PCTA of the carotid artery?
A. Doppler ultrasound and magnetic resonance imaging every 6 months
B. Examination 1-week post-procedure to check neurological status, Doppler ultrasound every 3 to 6 months then every year, magnetic resonance imaging 3 months post-procedure
C. Echocardiography, Doppler ultrasound 1 week post-procedure and then every 6 months
D. Echocardiography, Doppler ultrasound and magnetic resonance imaging at 1 week post-procedure and then every year
Answer: B
Explanation: The correct follow-up protocol for a patient who has had PCTA of the carotid artery includes an examination 1 week after the procedure to check neurological status. Additionally, Doppler ultrasound is performed every 3 to 6 months and then every year. Magnetic resonance imaging should be performed 3 months after the procedure, as well.