



Year: 2020/2021	Subject: Critical and Emergency Nursing (Nur 202)
Final First Term Exam	Second level / credit hours
Date : 4 /03 /2021	Total Marks:100
Time allowed: 3 Hours	Assist Prof.Dina El-Tabey

“ALL Questions should be answered”.

(100 Marks)

Part I

(50 Marks)

Read the following statement carefully, and then choose one answer.

1- What is the best way to check for patency of the arteriovenous fistula for hemodialysis?

- Check for capillary refill of the nail beds on that extremity
- Pinch the fistula and note the speed of filling on release
- Use a needle and syringe to aspirate blood from the fistula
- Palpate the fistula throughout its length to assess for a thrill

2- The patient is complaining of muscle cramps while undergoing hemodialysis. Which intervention is effective in relieving muscle cramps?

- Increase the rate of dialysis
- Encourage active ROM exercises
- Infuse normal saline solution
- Administer a 5% dextrose solution

3- Patient in the oliguria phase of renal failure expect a 24 hour urine output less than:

- 400ml
- 200ml
- 1000ml
- 800ml

4- Which cause of hypertension is the most common in acute renal failure?

- Anemia
- Hypovolemia
- Hypervolemia
- Pulmonary edema

5- The patient had an arteriovenous fistula surgery for hemodialysis. Which information is important for providing care for the patient?

- The patient feels best immediately after the dialysis treatment
- The patient shouldn't feel pain during initiation of dialysis
- Taking a blood pressure reading on the affected arm can cause clotting of the fistula
- Using a stethoscope for auscultating the fistula is contraindicated

6- What is the priority nursing diagnosis with patient diagnosed end-stage renal disease?

- Knowledge deficit
- Pain
- Activity intolerance
- Fluid volume excess

7- A patient has an arteriovenous fistula in the left arm for hemodialysis. Which intervention do you include in his plan of care?

- Apply pressure to the needle site upon discontinuing hemodialysis
- Keep the head of the bed elevated 45 degrees
- Keep the left arm dry
- Place the left arm on an arm board for at least 30 minutes



- 8- Which criteria is required before a patient can be considered for peritoneal dialysis?**
- The patient must be in a home setting
 - Hemodialysis must have failed
 - The patient must be hemodynamic stable
 - The vascular access must have healed
- 9- A client newly diagnosed with renal failure is receiving peritoneal dialysis. During the infusion of the dialysate the client complains of abdominal pain. Which action by the nurse is most appropriate?**
- Slow the infusion
 - Stop the dialysis
 - Decrease the amount to be infused
 - Explain that the pain will subside after the first few exchanges
- 10- The client with chronic renal failure returns to the nursing unit following a hemodialysis treatment. On assessment the nurse notes that the client's temperature is 39.2C. Which of the following is the most appropriate nursing action?**
- Continue to monitor vital signs
 - Monitor the site of the shunt for infection
 - Encourage fluids
 - Notify the physician
- 11- A patient is complaining of chest pain. Blood pressure 190/98, HR 110, oxygen saturation 96% on room air, and respiratory rate 20. What are the MOST IMPORTANT nursing interventions you will provide based on the patient's current status?**
- Obtain a 12-lead EKG
 - Administer Nitroglycerin sublingual as ordered per protocol
 - Collect cardiac enzymes as ordered per protocol
 - All of the above
- 12- Which of the following is the most common symptom of myocardial infarction (MI)?**
- Chest pain
 - Dyspnea
 - Edema
 - Palpitations
- 13- What is a myocardial infarction?**
- Heart failure
 - Heart attack
 - Cardiac arrest
 - All of the above
- 14- Which signs/symptoms would make the nurse suspect that the client is experiencing a myocardial infarction?**
- Midepigastric pain and pyrosis
 - Diaphoresis and cool clammy skin
 - Intermittent claudication and paloor
 - Jugular vein distention and dependent edema
- 15- The myocardial infarction patient is experiencing chest pain while walking to the bathroom. Which action should the nurse implement first?**
- Administer sublingual nitroglycerin
 - Obtain a stat 12 Lead ECG
 - Have the client sit down immediately
 - Assess the client's vital signs



16- Which of the following types of angina is most closely related with an impending MI?

- a) Angina decubitus
- b) Chronic stable angina
- c) Nocturnal angina
- d) Unstable angina

17- Which of the following conditions are the predominant causes of angina?

- a) Increased preload
- b) Decreased afterload
- c) Coronary artery spasm
- d) Inadequate oxygen supply to the myocardium

18- Which of the following tests is used most often to diagnose angina?

- a) Chest x-ray
- b) Echocardiogram
- c) Cardiac catheterization
- d) 12-lead electrocardiogram (ECG)

19- A patient reports during a routine check-up that he is experiencing chest pain and shortness of breath while performing activities. He states the pain goes away when he rests. This is known as:

- a) Unstable angina
- b) Variant angina
- c) Stable angina
- d) Prinzmetal angina

20- A patient with angina pectoris is being discharged home with nitroglycerine tablets. Which of the following instructions does the nurse include in the teaching?

- a) "Place one tablet under tongue. If the pain is not relieved in 15 minutes, go to the hospital."
- b) "Place one Nitroglycerine tablet under tongue every five minutes for three doses. Go to the hospital if the pain is unrelieved."
- c) "Continue your activity, and if the pain does not go away in 10 minutes, begin taking the nitro tablets one every 5 minutes for 15 minutes, then go lie down."
- d) "When your chest pain begins, lie down, and place one tablet under your tongue. If the pain continues, take another tablet in 5 minutes."

21- The client is on CPAP for weaning from a mechanical ventilator. Assessment reveals a respiratory rate of 32/min, oxygen saturation of 88 percent, and use of accessory muscles. What should the nurse anticipate will occur?

- a) The FiO₂ will be increased.
- b) Weaning will continue.
- c) The client will be placed back on full ventilatory support.
- d) The client will be extubated.

22- Initiation of weaning trial from the ventilator will be done in the -----

- a) Morning
- b) Afternoon
- c) At night
- d) All the above

23- ----- causes high pressure ventilator alarm

- a) Patient biting the ETT
- b) Disconnected tubing
- c) A cuff leak
- d) A leak in the humidifier



24- An empty humidifier contributes to -----

- a) Increase circuit resistance and interfere with spontaneous breathing.
- b) drying the airway
- c) dried secretions
- d) b& c

25- ----- is the volume of air delivered to a patient during a ventilator breath and the large volumes may lead to volutrauma

- a) Fraction of inspired oxygen (FIO₂)
- b) Tidal Volume (VT)
- c) Peak Flow
- d) Respiratory Rate

26- ----- prevents the lung from collapsing at end- exhalation, makes oxygen saturation increase, reduces lung damage, and when is too high, it can cause blood pressure to fall.

- a) Pressure-controlled ventilation (PCV)
- b) Pressure-support ventilation (PSV)
- c) Continuous positive airway pressure (CPAP)
- d) Positive end expiratory pressure (PEEP)

27- Respiratory failure characterized by-----

- a) Hypoxemia, hypercapnia and pH of less than 7.35.
- b) Hypoxemia, hypercapnia and pH of more than 7.35.
- c) Hypoxemia, hypocapnic and pH of less than 7.35.
- d) None of the above

28- To reduce venous return to the heart during the care of pulmonary edema , -----

- a) Place patient in upright position; head and shoulders up, feet and legs hanging down
- b) Place patient in semi fowler position with leg elevated on pillow
- c) Place patient in supine position
- d) Place patient on his/her sides

29- Frothy pink sputum as a classic symptom of pulmonary edema results from -----

- a) hypoxemia
- b) Lymphatic system obstruction
- c) The fluid within the alveoli mixes with air
- d) impaired gas exchange

30- The pulmonary edema patient receiving morphine is observed for-----

- a) hypertension and respiratory depression
- b) hypotension and vomiting
- c) diarrhea
- d) severe headache

31- Increase pulmonary artery wedge pressure more than 18 mmHg indicates-----

- a) Non cardiogenic pulmonary edema
- b) Right side heart failure
- c) cardiogenic pulmonary edema
- d) pulmonary embolism

32- Pulmonary edema is an acute event that results from-----

- a) Right ventricular failure.
- b) Left ventricular failure.
- c) Left and right ventricular failure.
- d) Others



33- What blood tests are relevant to pulmonary edema ?

- a) Urea nitrogen
- b) Myocardial muscle creatine kinase (CK-MB) and Troponin
- c) Glucose and ketone bodies
- d) others

34- When caring pulmonary edema patient, the nurse must check electrolyte levels because - -----may be significant.

- a) Potassium loss
- b) Sodium loss
- c) Calcium loss
- d) Phosphorus

35- Shock is a syndrome characterized by -----

- a) Inadequate tissue perfusion
- b) Anaerobic metabolism
- c) Acidosis and subsequent organ dysfunction.
- d) All of the above

36- Mild hypovolemic shock indicates an actual volume loss of -----

- a) 750 to 1500 mL.
- b) 750 mL.
- c) 1500 to 2000 mL.
- d) More than 2000 mL

37- What is the major risk factor for stroke?

- a) Obesity
- b) Diabetes
- c) High blood pressure
- d) Family history of stroke

38- A 68-year-old patient is being admitted with a possible stroke. Which information from the assessment indicates that the nurse should consult with the health care provider before giving the prescribed aspirin?

- a) The patient has dysphasia.
- b) The patient has atrial fibrillation.
- c) The patient reports that symptoms began with a severe headache.
- d) The patient has a history of brief episodes of right-sided hemiplegia

39- When teaching about clopidogrel (Plavix), the nurse will tell the patient with cerebral atherosclerosis

- a) To monitor and record the blood pressure daily.
- b) That Plavix will dissolve clots in the cerebral arteries.
- c) That Plavix will reduce cerebral artery plaque formation.
- d) To call the health care provider if stools are bloody or tarry.

40- Epinephrine is the first-line treatment for ----- Shock

- a) hypovolemic
- b) anaphylactic
- c) neurogenic
- d) cardiogenic



Part II: Read the case study carefully and answer the following questions (15 marks)

A 48 year female patient arrived to emergency department suffering superficial partial-thickness burns to the anterior head and neck, front and back of the left arm, front of the right arm, posterior trunk, front and back of the right leg, and back of the left leg. The patient weighs 70 kg. Vital signs are: oxygen saturation 63%, heart rate 145, blood pressure 80/56, and respiratory rate 39

- 1- Using the Rule of Nines, calculate the burned total body surface area? (10 marks)
- 2- Use the Parkland Burn Formula, What is the flow rate during the FIRST 24 hours (mL/hr) (5 marks)

Part III (35 Marks)

Answer the following questions:

- 1- Ventilator-associated pneumonia (VAP) is a major complication of mechanical ventilation, explain 7 steps to prevent the infection (7 Marks)
- 2- list 5 Classic Warning Signs of Stroke (5 Marks)
- 3- For the treatment of pulmonary edema, what L-M-N-O-P means? (5 Marks)
- 4- Give short notes on types of shock (6 Marks)
- 5- Enumerate clinical manifestations of myocardial infarction (MI) (6 marks)
- 6- Enumerate complications of hemodialysis (6 marks)

Good Luck

Dr. Dena El-Tabey