



كلية التمريض



Medical-Surgical Nursing Department



Faculty OF Nursing

Benha University

Medical Surgical department

Critical Nursing Final Exam

Second Year

Second term

Date: 8/6/2014

Code no: Nur 206

questions parts: 4

no of papers: 12

Time: 3 hours

Total Marks: 80

I- MCQ:- (25 Marks)

Please circle the correct answer only:

1) The risk factor most frequently associated with stroke is:

- a) Hypertension**
- b) Hypercholesterolemia
- c) Recurrent deep venous thrombosis
- d) Female gender

2) Signs and symptoms of neurologic deficit include:

- a) Chest pain.
- b) Cool, clammy skin.
- c) Paralysis or weakness**
- d) Deep, regular respirations

3) All the following are early symptoms of hypothyroidism except one:

- a) Chronic fatigue
- b) Weight loss**
- c) Sensitivity to cold
- d) Muscle and joint aches

4) Neurological deficit should alert you to the possibility of a condition affecting the patient's:

- a) Cardiovascular system
- b) Central nervous system**

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- c) Respiratory system
- d) Endocrine system

5) All the following are absolute contraindications of organs and tissues transplantation except:

- a) Intravenous drug abuse
- b) Age below 18 years (but able to give informed consent)**
- c) Major respiratory or cardiovascular disease
- d) HIV infection,

6) Cytoplasm and nucleoplasm comprises :

- a) 60% of all body fluids**
- b) 40% of all body fluids
- c) 80% of extracellular fluid
- d) 60% of intracellular fluid

7) MR Ahmed received about 3 L/day IV solutions and 500 cc oral fluids. What is the expected Urine output/day?

- a) 2100 cc**
- b) 1100 cc
- c) 600 cc
- d) 800 cc

8) Continuous renal replacement therapy occurs in

- a) Hemodialysis unit
- b) Peritoneal dialysis unit
- c) A&B
- d) Critical care unit**

9) MR Ali is undergoing peritoneal dialysis: nurse care to facilitate drainage by:-

- a) Encourage coughing
- b) Changing position
- c) Back massage
- d) Abdominal massage and changing position**

10) Arterio - venous fistula to mature takes:

- a) Two vein puncture are made into shunt
- b) 4 to 6 weeks before it ready to use**
- c) 4 to 6 weeks for healing process
- d) all of the above

11) The nurse caring for a male client with a chest tube turns the client to the side, and the chest tube accidentally disconnects. The initial nursing action is to:

- a) Call the physician.
- b) Place the tube in a bottle of sterile water.
- c) Immediately replace the chest tube system.
- d) Place the sterile dressing over the disconnection site.**

12) An unconscious male client is admitted to an emergency room. Arterial blood gas measurements reveal a pH of 7.30, a low bicarbonate level, a normal carbon dioxide level, a normal oxygen level, and an elevated potassium level. These results indicate the presence of:

- a) Metabolic acidosis**
- b) Respiratory acidosis
- c) Overcompensated respiratory acidosis
- d) Combined respiratory and metabolic acidosis

13) Before weaning a male client from a ventilator, which assessment parameter is most important for the nurse to review?

- a) Fluid intake for the last 24 hours
- b) Baseline arterial blood gas (ABG) levels**
- c) Prior outcomes of weaning
- d) Electrocardiogram (ECG) results

14) Which of the following would be most appropriate for a male client with an arterial blood gas (ABG) of pH 7.5, PaCO₂ 26 mm Hg, O₂ saturation 96%, HCO₃ 24 mEq/L, and PaO₂ 94 mm Hg?

- a) Administer a prescribed decongestant.
- b) Instruct the client to breathe into a paper bag.

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c) Offer the client fluids frequently.

d) Administer prescribed supplemental oxygen.

15) A female client is receiving supplemental oxygen. When determining the effectiveness of oxygen therapy, which arterial blood gas value is most important?

a) pH

b) Bicarbonate (HCO_3^-)

c) Partial pressure of arterial oxygen (PaO_2)

d) Partial pressure of arterial carbon dioxide (PaCO_2)

17) Patients at risk of their condition deteriorating. Whose needs can be met on an acute ward with additional advice and support from the critical care team, which critical care Level:

a) level 0

b) level 1

c) level 2

d) level 3

18) A nurse initially will use an AmbuBag in the intensive care unit when

a) A respiratory arrest occurs.

b) The client is in ventricular fibrillation.

c) The respiratory output must be monitored.

d) A surgical incision with copious drainage is present

19) Hypoxemic respiratory failure means:

a) Abnormally low pressure in lung

b) Abnormally low pressure in heart

c) Abnormally low pressure in alveoli

d) All of the above

20) ECG T waves changed during :

a) Hyperkalemia

b) imbalance potassium level

c) imbalance calcium level

d) Hypernatremia

21) All of these are the basic monitoring requirements for seriously ill patients except :

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- a) Pulse oximetry,
- b) Vital signs
- c) Blood gases.
- d) **Liver functions test**

22) The rehabilitation process of patient with Cerebrovascular accident includes all the following except one:-

- a) Speech therapy
- b) **Chemo therapy**
- c) Physical therapy
- d) Occupational therapy

23) Skin grafting is often used to treat:

- a) Extensive wounding or Trauma
- b) Burns
- c) **All the above**
- d) Non of the above

24) Drugs that prevent clotting may be given to stroked patient , including :

- a) **heparin intravenous**
- b) kapron
- c) Disunion
- d) Non of the above

25) Severe hypothyroidism may lead

- a) Hepatic coma
- b) **myxedema coma**
- c) Hypoglycemic coma
- d) Hyperglycemic coma

II-Matching**(15 marks)****Part I**

Column I		Column II	
1-	Respiratory acidosis		occurs cystic fibrosis
2-	Respiratory alkalosis		occrs in kidney fauir
3-	Metabolic acidosis		occurs in hyper ventilation
4-	Metabolic alkalosis		d-in rise bicarbonate level
5-	PH of urine		Equal 6.0

1	2	3	4	5
A	C	b	d	E

Part II

Column I		Column II	
6	acute rejection	A	It can occur months to years post-transplant
7	Cretinism.	B	can cause a goiter
8	Goiter	C	Occurs 2-4 days post-operatively.It is recognized by fever.
9	Chronic rejection	D	Thyroid deficiency at birth.
10	Iodine deficiency	E	is swelling in the neck due to an enlarged of thyroid gland.

1	2	3	4	5
c	d	e	a	b

Part II

Column I	Column II
1- Elevated carbon dioxide pressure in the blood	a- myasthenia

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	gravis
2- Synchronized intermittent mandatory ventilation method	b- mechanical ventilation
3- It is enlargement of the air spaces due to dilatation and /or destruction of the alveolar walls.	c- Emphysema
4) is appositive or negative pressure breathing device that can maintain ventilation & oxygen delivery for prolonged period	d- SIMV
5) chronic autoimmune disease marked by muscular weakness without atrophy	e- hypercapnic

1	2	3	4	5
e	d	c	b	a

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III-True or False

15 mark

T F 1) Hyperthyroidism, also called under active thyroid, is a condition in which the thyroid gland does not produce enough hormone.

T F 2) Tertiary hypothyroidism caused by pituitary disorder. .

T F 3)_The worst score of Glasgow Coma Scale = 15 while the best score = 3; 7 or less

T F 4) Early use of anticoagulants minimize blood clotting formation

T F 5) Presence of end stage disease is conceder form indication of organ transplantation

T F 6) Chronic renal failure is only indication for dialysis

T F 7) Peritoneal dialysis is used for patient with uncontrolled hypotention .

T F 8) Muscle tetany result from hypocacemia

T F 9) over excitability of central nervous system result from alkalosis

T F 10) Volume Depletion occur through GIT only

T F 11) Hypercapnic respiratory failure may due to decrease oxygen in the blood .

T F 12) Narcotics may lead to impaired drives which cause hypoxemic respiratory failure.

T F 13) Level 0.of critical care means that the patients whose needs can be met through the normal ward care in an acute hospital.

T F 14) Sodium is regulated by aldestrone hormone

T F 15) Normal level of calcium above 10 mg|dl

1	2	3	4	5	6	7	8	9	10	11	!2	13	14	15
f	T	F	F	T	T	F	T	T	F	F	F	T	t	f

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IV- Complete the Following (10 Marks)

- Factors increase chance for a successful organ transplant

(1.5 marks)

- The age of the donor organ. Generally, the younger the organ donor, the healthier the tissue.
- The length of time that the donor organ is out of the donor's body
- How well the organ was preserved just before transplantation

- List the Complication of liver transplantation (1.5 marks)

Immediately post operative complication:

- Bleeding -infection - Rejection
- obstruction biliary anastomosis

Potential complication:

- Vascular thrombosis - Stenosis

-- Most hydrogen ions originate from cellular metabolism..... (2 marks)

Problems with mechanical ventilation (2 marks)

1- ventilator problems

- increase in peak airway pressure due to coughing, plugged airway tube **solution** suction
- decrease in pressure or loss of volume due to pneumothorax, atelectasis, or bronchospasm **solution** suction and correct leak

2- patient problems

- Cardiovascular compromise due to decrease intravenous return.

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Solution; assess for adequate volume status

- Pulmonary infection due to impaired cough reflex

Solution; provide mouth care, optimize nutritional status **Basic**

metabolism requirements for critical ill patients (1 mark)

-1 cal/ kg of body weight per hour for men.

- 0.9 cal/ kg per hour for women.

Criteria for calling intensive care staff to critical ill patients: (2 marks)

- Threatened airway.
- All respiratory arrests.
- Respiratory rate ≥ 40 or ≤ 8 breaths/min.
- Oxygen saturation $< 90\%$ on $\geq 50\%$ oxygen.
- All cardiac arrests.
- Pulse rate < 40 or > 140 beats /min.
- Systolic blood pressure < 90 mm Hg.
- Sudden fall in level of consciousness (fall in Glasgow coma score > 2 points).
- Repeated or prolonged seizures.
- Rising arterial carbon dioxide tension with respiratory acidosis.

Any patient giving cause for concern.

IIV-Essay: (situation) (15 Marks)

Mr Aly admitted to ICU at Benha university hospital he was suffered from paralysis of one side of his body with partial loss of voluntary movement , Ineffective Airway Clearance and Risk for Imbalanced Fluid Volume

1)MR Aly diagnosed medicaly by : strok

(1mark)

2- What are the causes of this disease? (2mark)

a) ... Thrombosis: - it is an artery to the brain may be blocked by a clot

b) atherosclerosis ("hardening of the artery"),

c) An embolic stroke. A blood clot can form in a chamber of the heart

d) A cerebral hemorrhage (bleeding in the brain)

3) What are Nursing intervention for previous mentioned nursing

Diagnoses using priority for Mr Aly (5 mark)

1- Ineffective Airway Clearance related to upper airway obstruction by tongue and soft tissues; inability to clear respiratory secretions

2-Risk for Imbalanced Fluid Volume related to inability to ingest fluids, dehydration from osmotic therapy (when used to reduce intracranial pressure)

1- Ineffective Airway Clearance related to upper airway obstruction	<ul style="list-style-type: none">• Position patient to prevent tongue from obstructing the airway, encourage drainage of respiratory secretions, and promote adequate exchange of oxygen and carbon dioxide.• Keep the airway free from secretions with suctioning. In the absence of cough and
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	<p>swallowing reflexes, secretions rapidly accumulate in the posterior pharynx and upper trachea and can lead to respiratory complications (eg, aspiration).</p> <ul style="list-style-type: none"> ○ Insert oral airway if tongue is paralyzed or is obstructing the airway. An obstructed airway increases ICP. This is considered a short-term measure. ○ Prepare for insertion of cuffed endotracheal tube to protect the airway from aspiration and to allow efficient removal of tracheobronchial secretions. ○ enated blood to the CNS. <p>Pretreat before suctioning with sedative, opioid, or endotracheal lidocaine, if indicated</p>
<p>2- Risk for Imbalanced Fluid Volume related to inability to ingest fluids,</p>	<ul style="list-style-type: none"> • Monitor prescribed I.V. fluids carefully, maintaining euvoemia, minimizing large volumes of “free water,” which may aggravate cerebral edema. • Maintain hydration and enhance nutritional status with use of enteral or parenteral fluids. • Measure urine output and specific gravity. • Evaluate pulses (radial, carotid, apical, and

	<p>pedal); measure BP; these parameters are a measure of circulatory adequacy/inadequacy.</p> <ul style="list-style-type: none"> • Maintain circulation; support the BP and treat life-threatening cardiac dysrhythmias.
3- immobiity	

ii 2nd

situation

MSS Hnia admitted to dialysis unit by uncontrolledhypertension and increase hepatic enzyme

1-What the type of dialysis recommended? **(1 mark)**

Peritoneal dialysis

2-What is the complication of this type of dialysis?(2 mark)

- 1- Site infection
- 2-Peritonitis
- 3-Abdominal pain out flow problem
- 4-Hernias
- 5-Lower back problem
- 6-Bleeding
- 7-Pulmonary edema
- 8-Protein loss
- 9-Carbohydrate and libid abnormalities

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3- What the role of nurse during this type? (4 mark)

Measure body weight, intake and out put.vital signs and electrolyte level

Facilitate draen by gentel massageand changing position

If retention of dialyseate allow patient to move, slowing rate and flow

Diet give adequate amount of protein,and small frequent meal

Encourage coughin and breathing exercise

اسم استاذ المادة

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THE END OF QUESTIONS