

UNIVERSITY OF ESWATINI
FACULTY OF HEALTH SCIENCES
MAIN EXAMINATION – NOVEMBER 2021

TITLE OF PAPER: ADVANCED MEDICAL /SURGICAL NURSING IV

COURSE: NUR 511

DURATION: 2 HOURS

TOTAL MARKS: 75

INSTRUCTIONS:

1. THERE ARE THREE (3) QUESTIONS IN THIS PAPER
2. ANSWER ALL THREE (3) QUESTIONS.
3. EACH QUESTION IS ALLOCATED 25 MARKS.
4. EACH QUESTION IS TO BE ANSWERED ON A SEPARATE PAGE IN YOUR ANSWER BOOKLET.
5. CHECK ALLOCATED MARK(S) AT THE END OF EACH QUESTION

DO NOT OPEN THIS PAPER UNTIL THE INVIGILATOR HAS GRANTED PERMISSION.

Question 1

Instruction: In your answer booklet, write the correct letter that corresponds to the question or statement. E.g. 1. F

1. A client with a peptic ulcer reports epigastric pain that frequently awakens her at night, a feeling of fullness in the abdomen, and a feeling of anxiety about her health. Based on this information, which nursing diagnosis would be most appropriate?
 - A. Disturbed Sleep Pattern related to epigastric pain
 - B. Activity Intolerance related to abdominal pain
 - C. Ineffective Coping related to exacerbation of duodenal ulcer
 - D. Imbalanced Nutrition: Less than Body Requirements related to anorexia

2. The nurse provides medication instructions to a client with peptic ulcer disease. Which statement, if made by the client, indicates the best understanding of the medication therapy?
 - A. "Omeprazole (Prilosec) will coat the ulcer and help it heal."
 - B. "Sucralfate (Carafate) will change the fluid in my stomach."
 - C. "The cimetidine (Tagamet) will cause me to produce less stomach acid."
 - D. "Antacids will coat my stomach."

3. A client with peptic ulcer disease tells the nurse that he has black stools, which he has not reported to his physician. Based on this information, which nursing diagnosis would be appropriate for this client?
 - A. Ineffective coping related to fear of diagnosis of chronic illness
 - B. Imbalanced nutrition: Less than body requirements due to gastric bleeding
 - C. Constipation related to decreased gastric motility
 - D. Deficient knowledge related to unfamiliarity with significant signs and symptoms.

4. Dialysis allows for the exchange of particles across a semipermeable membrane by which of the following actions?
- A. Passage of fluid toward a solution with a lower solute concentration
 - B. Allowing the passage of blood cells and protein molecules through it
 - C. Passage of solute particles toward a solution with a higher concentration
 - D. Osmosis and diffusion
5. The nurse has completed client teaching with the hemodialysis client about self-monitoring between hemodialysis treatments. The nurse determines that the client best understands the information given if the client starts to record the daily:
- A. Pulse and respiratory rate
 - B. Intake, output, and weight
 - C. BUN and creatinine levels
 - D. Activity log
6. Which of the following clients is at greatest risk for developing acute renal failure?
- A. A dialysis client who gets influenza
 - B. A pregnant woman who has a fractured femur
 - C. A teenager who has an appendectomy
 - D. A client with diabetes who has a heart catheterization
7. The Neurosurgeon performed a deep tendon reflex on Zweli, and she rated it at 2+. What does it mean to have a 2+ tendon reflex grade?
- A. Normal
 - B. Areflexia
 - C. Hyperreflexia
 - D. Abnormal

8. Lora is a 42-year-old female involved in a motor vehicle accident and is your patient for the day. You assessed her pupils, and one eye is dilated and nonreactive to light. What is the likely cause of this reaction?

- A. The patient is in a coma.
- B. Suggestive of severe brain injury.
- C. Suggestive of compression of the oculomotor nerve.
- D. Suggestive of an overly sedated patient.

9. Leo is a 15-year-old boy admitted into the intensive care unit for ventilatory support. He was diagnosed with neurotoxin. Parents suspect that he ate an unknown plant during their visit to a botanical garden, as they had identified some leafy stuff from his vomitus. He presented with severe respiratory distress and lethargy on admission. The physician assessed his pupils, and you overheard him saying, "the boy has lost his sympathetic control." What would be the status of the pupils if a patient has lost sympathetic control?

- A. The pupils will be constricted and nonreactive
- B. The pupils will be dilated and nonreactive
- C. The pupils will be pinpointing and nonreactive
- D. The pupils will be unresponsive.

10. What is the expected outcome of thrombolytic drug therapy?

- A. Vasoconstriction.
- B. Prevention of haemorrhage
- C. Increased vascular permeability.
- D. Dissolved emboli.

11. How would you determine if the third (CN3) cranial nerve is intact from a conscious patient?

- A. It can be assessed by shining a beam of light in the patient's eyes.
- B. It can be assessed by asking the patient to follow your finger movement.
- C. It can be assessed by asking the patient to read on a Snellen chart.
- D. It can be assessed by holding the patient's eyelids open and briskly turning the head to one side.

12. A nurse is assessing the patency of an arteriovenous fistula in the left arm of a client receiving hemodialysis treatment. Which finding indicates that the fistula is patent?

- A. Capillary refill time less than 3 seconds in the nail beds of the fingers on the left hand
- B. Palpation of a thrill over the fistula
- C. Presence of a radial pulse in the left wrist
- D. Absence of bruit on auscultation of the fistula

13. A client is diagnosed with chronic renal failure and told she must start hemodialysis. Which of the following instructions must be included in the client's teaching plan?

- A. Strictly follow the hemodialysis schedule
- B. There will be a few changes in your lifestyle
- C. Follow a high potassium diet
- D. Use alcohol on the skin and clean it due to integumentary changes

14. A patient is on intravenous (IV) norepinephrine for treatment of septic shock. Which statement is FALSE about this medication?

- A. "The nurse should titrate this medication to maintain a mean arterial pressure (MAP) of 65 mmHg or greater."
- B. "This medication causes vasodilation and decreases systemic vascular resistance."
- C. "It is used when fluid replacement is not successful."
- D. "It is considered a vasopressor."

15. A patient with a severe infection has developed septic shock. The patient's blood pressure is 72/44 mmHg, heart rate 130, respiration 22, oxygen saturation 96% on high-flow oxygen, and temperature 39.8°C. In addition, the patient's mean arterial pressure (MAP) is 53 mmHg. Based on these findings, you know this patient is experiencing diminished tissue perfusion and needs treatment to improve tissue perfusion to prevent organ dysfunction. Based on your knowledge of the pathophysiology of septic shock, what is occurring in the body that leads to decreased tissue perfusion?

- I. Absolute hypovolemia.
- II. Vasodilation.
- III. Increased capillary permeability.
- IV. Increased systemic vascular resistance.
- V. Clot formation in microcirculation.
- VI. A significantly decreased cardiac output.

- A. I, II, III, V
- B. II, III, IV,
- C. II, III, V,
- D. II, III, IV

16. What should the nurse emphasize when teaching patients at risk for upper gastrointestinal (GI) bleeding to prevent bleeding episodes?

- A. All stools and vomitus must be tested for the presence of blood.
- B. The use of over the counter (OTC) medications of any kind should be avoided.
- C. Antacids should be taken with all prescribed medications to prevent gastric irritation.
- D. Misoprostol (Cytotec) should be used to protect the gastric mucosa in individuals with peptic ulcers.

17. A patient with a history of peptic ulcer disease is hospitalized with symptoms of perforation. During the initial assessment, what should the nurse expect the patient to report?

- A. Vomiting of bright-red blood.
- B. Projectile vomiting of undigested food.
- C. Sudden, severe generalized abdominal and back pain.
- D. Hyperactive bowel sounds and upper abdominal swelling.

18. The nurse suspects sepsis as a cause of shock when the laboratory test results indicate _____?

- A. Hypokalemia.
- B. Thrombocytopenia.
- C. Decreased haemoglobin.
- D. Increased blood urea nitrogen (BUN).

19. The patient is in the compensatory stage of shock. What manifestations indicate this to the nurse?

- I. Pale and cool
 - II. Unresponsive
 - III. Lower blood pressure than baseline
 - IV. Moist crackles in the lungs
 - V. Hyperactive bowel sounds
 - VI. Tachypnea and tachycardia
- A. I, III, VI
 - B. I, II, IV
 - C. III, V, VI
 - D. I, II, III.

20. A 78-year-old client is admitted to the emergency department with numbness and weakness of the left arm and slurred speech. Which nursing intervention is a priority?

- A. Notify the speech pathologist for an emergency consult.
- B. Prepare to administer recombinant tissue plasminogen activator (rt-PA).
- C. Schedule for an emergency computer tomography (CT) scan of the head.
- D. Discuss the precipitating factors that caused the symptoms.

21. Which assessment data would indicate to the nurse that the client would be at risk for a hemorrhagic stroke?

- A. The presence of bronchogenic carcinoma.
- B. A right-sided carotid bruit.
- C. A blood pressure of 220/120 mmHg.
- D. A blood glucose level of 480 mg/dl

22. During the first 24 hours after thrombolytic therapy for ischemic stroke, the primary goal is to control the client's:

- A. Temperature
- B. Pulse
- C. Blood pressure
- D. Respirations

23. The nurse is assessing the motor function of an unconscious client. Which of the following actions should the nurse perform to test the client's peripheral response to pain?

- A. Sternal rub
- B. Nail bed pressure
- C. Squeezing the sternocleidomastoid muscle
- D. Pressure on the orbital rim

24. Which of the following values is considered normal for intracranial pressure(ICP)?

- A. 35 to 45 mm Hg
- B. 120/80 mm Hg
- C. 15 mm Hg
- D. 0 to 15 mm Hg

25. Which of the following substances is most likely to cause gastritis?

- A. Bicarbonate of soda, or baking soda
- B. Milk
- C. Nonsteroidal anti-inflammatory drugs
- D. Enteric-coated aspirin

(Subtotal 25 marks)

QUESTION 2

2.1 Explain why the level of creatinine in the blood is considered an essential indicator for determining the functionality of kidneys? **(4 marks)**

2.2 **Scenario:** Mr Luke is a 44-year-old male who is newly diagnosed with acute kidney injury. He was brought to the hospital by his wife, who gave the following history since her husband was confused but conscious:

She reported that her husband has a history of poorly controlled hypertension despite taking medication as prescribed. As a result, he went to a traditional healer for consultation, and was given some medication to drink. He has taken the traditional medicine for two weeks. She further revealed that he was fine all along until the past two days where he could only pass a teaspoonful of urine that was followed by a no flow at all despite taking fluids. When asked if she has noticed any weight changes, she said yes and reported that some of his clothes are no longer fitting.

Vital signs: Blood pressure- 88/60 mmHg; Temperature-39.5 °C; Pulse- 120 b/min; Respirations-28 br/min; Weight- 96 Kg; Mean arterial pressure-60 mmHg and dry mucous membranes.

a) Identify the type of acute kidney injury that is likely to be experienced by Mr Luke. Give a reason for your answer. **(3 marks)**

b) Develop three (3) nursing diagnoses that you will consider when managing Mr Luke's condition. **(3 marks)**

c) What major outcomes do you expect to achieve for Mr Luke? Mention any two (2) outcome criteria for each diagnosis you identified in (b) above. **(6 marks)**

- d) Discuss the nursing interventions for managing MrLukhele's condition under the three (3) diagnoses you identify in (b) above. Give three interventions for each diagnosis. (9 marks)

(Subtotal 25 marks)

QUESTION 3

3.1 Coma is a state of unconsciousness that is commonly encountered in the critical care unit (CCU). Discuss the pathophysiology of coma. **(6 marks)**

3.2 **Scenario:** Vusi, a 43-year-old male, admitted to the intensive care unit with a diagnosis of coma. He was accompanied by his wife who assisted with the history of Vusi's illness.

- a. Explain how a diagnosis of coma is ascertained? **(1 mark)**
- b. What is the name of the tool for diagnosing coma and state the finding that indicates the coma diagnosis? **(1 mark)**
- c. One of the rapid assessment's performed on Vusi was the examination of his respiratory patterns. Why is it essential to assess the respiratory patterns of a patient who is in a coma state? **(1 mark)**
- d. Discuss the key neurologic history (subjective data) that you should obtain to understand the underlying cause of Vusi's condition? **(8 marks)**

3.3 Explain the medical management of a patient who remains in a coma state after an emergent treatment. **(3 marks)**

3.4 One of the priority nursing goals in managing a patient with traumatic brain injury (TBI) is the reduction of increased intracranial pressure (ICP). Explain the mechanism that leads to the development of increased intracranial pressure among patients with traumatic brain injury. **(5 marks)**

(Subtotal 25 marks)