National League for Nursing (NLN) Medication Practice Exam (Sample)

Study Guide



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Questions



- 1. What is the recommended pediatric dosage for acetaminophen (Tylenol)?
 - A. 5-10 mg/kg at 4-hour intervals
 - B. 10-15 mg/kg at 4-hour intervals
 - C. 15-20 mg/kg at 6-hour intervals
 - D. 20-25 mg/kg at 8-hour intervals
- 2. What is necessary for a nurse to do prior to administering insulin?
 - A. Assess the patient's diet
 - B. Check blood glucose levels
 - C. Review the patient's mental status
 - D. Obtain vital signs
- 3. Which side effect might be expected from the administration of furosemide (Lasix)?
 - A. Hyperkalemia
 - B. Hyponatremia
 - C. Hypertension
 - D. Auditory impairment
- 4. What should a nurse assess to evaluate the effectiveness of a blood pressure medication like amlodipine?
 - A. Heart rate
 - **B.** Blood pressure
 - C. Weight
 - D. Respiration rate
- 5. Signs of renal toxicity for a patient on vancomycin hydrochloride (Vancocin) would include?
 - A. Increased serum creatinine level
 - B. Decreased blood urea nitrogen, BUN, level
 - C. Increased blood pressure
 - D. Intermittent flank pain

- 6. What is one of the main objectives of medication education for patients?
 - A. To ensure patients feel overwhelmed with information
 - B. To help patients understand their treatment and improve adherence
 - C. To promote the discontinuation of medications
 - D. To minimize consultation time with healthcare providers
- 7. Which condition indicates the need for caution when prescribing ACE inhibitors?
 - A. Diabetes
 - B. Chronic kidney disease
 - C. Gout
 - D. Asthma
- 8. What should be the next step if the aPTT is less than 35 while on IV heparin?
 - A. Decrease IV INF rate by 4 international units/kg/hr
 - B. Maintain the IV INF rate
 - C. Increase IV INF rate by 4 international units/kg/hr
 - D. Hold IV INF for 1 hour
- 9. Why is clear communication vital when instructing patients about medications?
 - A. It reduces the chance of misunderstandings
 - B. It allows for quicker consultations
 - C. It emphasizes the healthcare provider's authority
 - D. It eliminates the need for written materials
- 10. How should a nurse address the medication needs of a post-operative patient?
 - A. Automatically prescribe the highest dosage of analgesia
 - B. Assess pain levels and medication history for appropriate pain relief
 - C. Consult with the patient about their preferences without assessment
 - D. Delay medication until the patient is fully recovered

Answers



- 1. B 2. B
- 3. B

- 3. B 4. B 5. A 6. B 7. B 8. C 9. A 10. B



Explanations



1. What is the recommended pediatric dosage for acetaminophen (Tylenol)?

- A. 5-10 mg/kg at 4-hour intervals
- B. 10-15 mg/kg at 4-hour intervals
- C. 15-20 mg/kg at 6-hour intervals
- D. 20-25 mg/kg at 8-hour intervals

The recommended pediatric dosage for acetaminophen (Tylenol) is 10-15 mg/kg at 4-hour intervals. This range is considered safe and effective for managing fever and mild to moderate pain in children. The dosing interval of 4 hours allows for sufficient time to monitor the child's response to the medication while ensuring the dosage does not exceed the maximum daily limit, which is critical to avoid potential toxicity. Using this range provides flexibility in dosing, allowing healthcare providers to adjust the dose based on the individual child's comfort and age while maintaining a focus on safety. The lower end of the range (10 mg/kg) may be appropriate for regular maintenance dosing or for children who are more sensitive to medications, while the higher end (15 mg/kg) may be employed in cases where more potent analgesic effects are necessary. It is important for caregivers to adhere to this recommended dosage to prevent overdosing, which could lead to serious liver damage, particularly in children, due to their lower body weight and differing metabolism compared to adults.

2. What is necessary for a nurse to do prior to administering insulin?

- A. Assess the patient's diet
- B. Check blood glucose levels
- C. Review the patient's mental status
- D. Obtain vital signs

Checking blood glucose levels is essential prior to administering insulin because insulin is directly related to the patient's current blood sugar levels. Administering insulin without knowing the patient's blood glucose can lead to potentially dangerous situations, such as hypoglycemia if the patient's blood sugar is already low. Blood glucose monitoring helps determine if the insulin dose prescribed is appropriate based on the patient's needs at that moment. While assessing the patient's diet, reviewing mental status, and obtaining vital signs are all important components of overall patient care, they do not provide the immediate, vital information needed to make the safe decision about insulin administration. Understanding the patient's current blood sugar level is a critical step in managing diabetes effectively and safely dosing insulin.

- 3. Which side effect might be expected from the administration of furosemide (Lasix)?
 - A. Hyperkalemia
 - **B.** Hyponatremia
 - C. Hypertension
 - D. Auditory impairment

Furosemide, commonly known as Lasix, is a loop diuretic that helps to remove excess fluid from the body by increasing urine production. A notable side effect associated with furosemide is hyponatremia, which is a condition characterized by low sodium levels in the blood. As furosemide promotes diuresis, it can lead to electrolyte imbalances due to the loss of not only water but also sodium. This can result in decreased sodium concentration in the bloodstream, leading to hyponatremia. Recognizing this side effect is crucial for healthcare providers, as it may necessitate monitoring of electrolyte levels during treatment and possibly adjusting therapy based on the patient's results. Other potential side effects associated with furosemide include hyperkalemia, which is an increase in potassium levels, hypertension, and auditory impairment. However, hyponatremia is specifically a consequence of the diuretic effect of furosemide, making it the expected side effect from its administration. Thus, understanding the mechanism of action of furosemide provides insight into its potential effects on electrolyte balance, particularly sodium levels in the body.

- 4. What should a nurse assess to evaluate the effectiveness of a blood pressure medication like amlodipine?
 - A. Heart rate
 - **B.** Blood pressure
 - C. Weight
 - D. Respiration rate

To evaluate the effectiveness of a blood pressure medication such as amlodipine, the most relevant assessment is blood pressure. Amlodipine is a calcium channel blocker commonly used to treat hypertension (high blood pressure) and conditions related to coronary artery disease. The medication works by relaxing the blood vessels, which lowers blood pressure. Monitoring blood pressure provides direct information about how well the medication is managing the patient's hypertension. A decrease in blood pressure indicates that the medication is effective, whereas persistent high blood pressure might suggest that the medication needs to be adjusted, or a different treatment strategy may be required. While heart rate, weight, and respiration rate can provide important information about a patient's overall health and may indicate some cardiovascular status changes, they are not the primary indicators of a medication's effectiveness for blood pressure management. Blood pressure is the critical measure that reflects the direct impact of medications meant to regulate hypertension.

- 5. Signs of renal toxicity for a patient on vancomycin hydrochloride (Vancocin) would include?
 - A. Increased serum creatinine level
 - B. Decreased blood urea nitrogen, BUN, level
 - C. Increased blood pressure
 - D. Intermittent flank pain

An increased serum creatinine level is a significant indicator of renal toxicity, particularly in patients receiving vancomycin hydrochloride. This is because vancomycin is known to potentially cause nephrotoxicity, especially when used at higher doses or in patients with pre-existing renal impairment. Creatinine is a waste product that is normally filtered out of the blood by the kidneys. When kidney function is compromised, the serum creatinine levels rise, reflecting deteriorating renal function. Monitoring this parameter is crucial in patients on nephrotoxic medications like vancomycin to assess kidney health and make necessary dose adjustments or discontinuation of the drug to prevent further damage. Other options do not typically indicate renal toxicity. For instance, a decreased BUN level might suggest improved renal function or could be influenced by factors unrelated to renal toxicity. Increased blood pressure and intermittent flank pain are not directly associated with the renal toxicity caused by vancomycin and may arise from other issues unrelated to renal function.

- 6. What is one of the main objectives of medication education for patients?
 - A. To ensure patients feel overwhelmed with information
 - B. To help patients understand their treatment and improve adherence
 - C. To promote the discontinuation of medications
 - D. To minimize consultation time with healthcare providers

One of the main objectives of medication education for patients is to help them understand their treatment and improve adherence. This understanding empowers patients by providing them with the knowledge they need about their medications, including the purpose, dosage, potential side effects, and the importance of taking their medications as prescribed. When patients grasp how their treatment works and why it is essential, they are more likely to follow their healthcare regimen, leading to better health outcomes and reduced risk of complications. Effective medication education also fosters communication between patients and healthcare providers, allowing patients to ask questions and express any concerns they might have. This not only enhances adherence but also builds trust and encourages a collaborative approach to healthcare. Overall, the primary aim is to enable patients to take an active role in their care, leading to more successful treatment plans.

7. Which condition indicates the need for caution when prescribing ACE inhibitors?

- A. Diabetes
- **B.** Chronic kidney disease
- C. Gout
- D. Asthma

The need for caution when prescribing ACE inhibitors is particularly indicated in individuals with chronic kidney disease. ACE inhibitors work by blocking the conversion of angiotensin I to angiotensin II, which leads to vasodilation and decreased blood pressure. However, in patients with chronic kidney disease, there is a risk of further deterioration in kidney function when starting or increasing dosages of these medications. Patients with chronic kidney disease often have reduced kidney perfusion and glomerular filtration rate (GFR). ACE inhibitors can lead to a decrease in renal perfusion pressure, potentially resulting in acute kidney injury. Consequently, careful monitoring of kidney function is essential after initiating therapy in this population to ensure that the benefits of using ACE inhibitors in controlling blood pressure and potentially providing renal protective benefits outweigh the risks of worsening kidney function. While other listed conditions may also warrant some attention, they do not present the same level of risk for acute kidney injury as chronic kidney disease does when starting an ACE inhibitor.

8. What should be the next step if the aPTT is less than 35 while on IV heparin?

- A. Decrease IV INF rate by 4 international units/kg/hr
- B. Maintain the IV INF rate
- C. Increase IV INF rate by 4 international units/kg/hr
- D. Hold IV INF for 1 hour

The appropriate next step when the activated partial thromboplastin time (aPTT) is less than 35 seconds while a patient is on intravenous (IV) heparin is to increase the IV infusion rate by 4 international units/kg/hr. In the context of anticoagulation therapy with heparin, the aPTT is a key laboratory test used to monitor the efficacy of the medication. It is crucial to maintain the aPTT within a therapeutic range to prevent thromboembolic events while also minimizing the risk of bleeding. When the aPTT is less than 35 seconds, it indicates that the anticoagulant effect of heparin is insufficient. In such cases, increasing the dose of heparin is warranted to elevate the aPTT to the desired therapeutic range, typically between 60 and 80 seconds for patients receiving heparin therapy. This adjustment helps ensure that the patient receives an adequate dose to provide the necessary anticoagulation. Maintaining the IV infusion rate would not address the insufficient anticoagulation, risking potential thromboembolic complications. Reducing the infusion rate or holding the medication would further decrease the anticoagulant effect, which is counterproductive in this scenario. Therefore, increasing

- 9. Why is clear communication vital when instructing patients about medications?
 - A. It reduces the chance of misunderstandings
 - B. It allows for quicker consultations
 - C. It emphasizes the healthcare provider's authority
 - D. It eliminates the need for written materials

Clear communication is vital when instructing patients about medications because it significantly reduces the chance of misunderstandings. When patients receive precise and unambiguous information regarding their medications, including dosage, timing, and potential side effects, they are more likely to adhere to the prescribed treatment regimen. Misunderstandings can lead to medication errors, which may result in adverse effects, lack of therapeutic efficacy, or even serious health risks. Effective communication also allows patients to ask questions and express concerns, fostering a collaborative relationship between the patient and healthcare provider. This interaction not only promotes patient safety but also empowers patients in their health management, enhancing overall treatment outcomes. While quicker consultations and the authority of the healthcare provider are important aspects of medical practice, the primary focus on minimizing misunderstandings ultimately safeguards patient health and well-being.

- 10. How should a nurse address the medication needs of a post-operative patient?
 - A. Automatically prescribe the highest dosage of analgesia
 - B. Assess pain levels and medication history for appropriate pain relief
 - C. Consult with the patient about their preferences without assessment
 - D. Delay medication until the patient is fully recovered

Addressing the medication needs of a post-operative patient involves a careful and individualized approach to ensure effective pain management and promote healing. Assessing pain levels and medication history allows the nurse to determine the most appropriate pain relief strategy tailored to the patient's specific situation. Pain levels provide valuable insight into the current discomfort and response to previous medications. Understanding the patient's medication history, including any prior experiences with specific analgesics, allergies, or adverse reactions, informs the nurse's decisions about potential medication options and dosages. This holistic assessment supports the goal of achieving optimal pain control while minimizing side effects and preventing complications. Focusing solely on automatic prescriptions of high dosages may lead to over-medication and increased risk of side effects without addressing the individual patient's needs. Simply consulting the patient without assessment might result in a lack of adequate pain management or reliance on subjective input that may not encompass all medical considerations. Lastly, delaying medication until full recovery is impractical and could result in unnecessary suffering and decreased patient satisfaction. Therefore, a thorough assessment is critical for delivering safe and effective care.