

Canada Pharmacy Technician Practice Exam (Sample)

Study Guide



Everything you need from our exam experts!

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SAMPLE

Questions

SAMPLE

- 1. Which combination medication includes Fluticasone and Salmeterol?**
 - A. Symbicort**
 - B. Advair**
 - C. Combivent**
 - D. Pumicort**
- 2. Which product should pregnant women avoid for heartburn and acid reflux?**
 - A. calcium carbonate**
 - B. aluminium hydroxide**
 - C. bismuth subsalicylate**
 - D. magnesium hydroxide**
- 3. What action aligns with the principle of beneficence during a time-sensitive situation?**
 - A. Taking a break until the order is ready**
 - B. Prioritizing personal lunch break over patient needs**
 - C. Resolving the medication order promptly for the patient**
 - D. Deferring the medication delivery until after lunch**
- 4. Which medication is known to possibly result in precipitate when mixed with D5W or NS?**
 - A. Ativan**
 - B. Diazepam (Valium)**
 - C. Furosemide**
 - D. Gentamicin**
- 5. Which inventory management process considers order costs and inventory holding costs?**
 - A. Periodic review**
 - B. Just-in-time ordering**
 - C. Economic order quantity**
 - D. Continuous review**

- 6. What solution must filgrastim be administered with?**
- A. Normal saline**
 - B. Dextrose**
 - C. Sterile water**
 - D. Lactated Ringer's solution**
- 7. Which factor is NOT typically considered when adding medications to a formulary?**
- A. Drug cost**
 - B. Side effects**
 - C. Brand popularity**
 - D. Alternatives not available in the formulary**
- 8. How is gross profit calculated in a pharmacy?**
- A. Selling price - purchase price**
 - B. Selling price - operating expenses**
 - C. Purchase price - costs of sales**
 - D. Selling price - total expenses**
- 9. How can a pharmacist maintain honesty while addressing patient concerns about side effects?**
- A. By providing a detailed printed leaflets**
 - B. By encouraging self-medication**
 - C. By discussing information verbally to alleviate fears**
 - D. By dismissing the side effects as irrelevant**
- 10. Which hepatitis A virus vaccine is known to be preservative-free?**
- A. Havrix**
 - B. Vaqta**
 - C. Epaxal**
 - D. Avaxim**

Answers

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

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Explanations

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1. Which combination medication includes Fluticasone and Salmeterol?

- A. Symbicort
- B. Advair**
- C. Combivent
- D. Pumicort

The combination medication that includes Fluticasone and Salmeterol is Advair. This medication is specifically indicated for the management of asthma and chronic obstructive pulmonary disease (COPD) and is formulated to combine a corticosteroid (Fluticasone) with a long-acting beta-agonist (Salmeterol). Fluticasone works to reduce inflammation in the airways, while Salmeterol helps to relax the muscles around the airways, making breathing easier. Understanding the components and their functions is crucial for effective patient management. Other options listed involve different active ingredients or combinations and are used for varying therapeutic effects. For instance, Symbicort contains Budesonide (a corticosteroid) and Formoterol (a long-acting beta-agonist), while Combivent includes Ipratropium (an anticholinergic) and Albuterol (a short-acting beta-agonist). Pumicort, a misspelling of Pulmicort, also contains Budesonide. Recognizing these distinct characteristics ensures pharmacy technicians can better assist patients in understanding their medications and their specific uses.

2. Which product should pregnant women avoid for heartburn and acid reflux?

- A. calcium carbonate
- B. aluminium hydroxide
- C. bismuth subsalicylate**
- D. magnesium hydroxide

Pregnant women should avoid bismuth subsalicylate for heartburn and acid reflux due to its salicylate content, which is similar to aspirin. The use of aspirin during pregnancy, especially in the third trimester, is linked to potential risks such as prolonged labor and hemorrhage. Additionally, salicylates can cross the placenta and may affect fetal development or lead to complications, making it a substance that is best avoided during pregnancy. In contrast, other options listed, such as calcium carbonate, aluminum hydroxide, and magnesium hydroxide, are commonly used for treating heartburn and acid reflux and are generally considered safe for use during pregnancy. These antacids neutralize stomach acid without the associated risks of bismuth subsalicylate, confirming the rationale behind recommending them over bismuth subsalicylate for pregnant women.

3. What action aligns with the principle of beneficence during a time-sensitive situation?

- A. Taking a break until the order is ready**
- B. Prioritizing personal lunch break over patient needs**
- C. Resolving the medication order promptly for the patient**
- D. Deferring the medication delivery until after lunch**

The principle of beneficence refers to the ethical obligation to act in the best interest of the patient, promoting their well-being and ensuring they receive appropriate care. In time-sensitive situations, this principle becomes especially critical as delays in treatment can significantly affect patient outcomes. Resolving the medication order promptly for the patient is an action that directly reflects the commitment to beneficence. By prioritizing the timely processing of medication, the pharmacy technician ensures that the patient receives the necessary treatment without unnecessary delays. This action not only demonstrates a focus on patient welfare but also reinforces the responsibility of healthcare professionals to provide efficient and effective care. In contrast, actions such as taking a break until the order is ready, prioritizing personal lunch breaks over patient needs, or deferring the medication delivery until after lunch do not align with the principle of beneficence. These choices could lead to delays in patient care, which can compromise the patient's health and well-being, highlighting a failure to prioritize the urgent needs of those receiving care.

4. Which medication is known to possibly result in precipitate when mixed with D5W or NS?

- A. Ativan**
- B. Diazepam (Valium)**
- C. Furosemide**
- D. Gentamicin**

Diazepam (Valium) is known to potentially form precipitate, especially when mixed with dextrose 5% in water (D5W) or normal saline (NS). This is due to diazepam's property of being poorly soluble in such aqueous solutions, leading to the formation of a precipitate. When diazepam is administered, it is typically mixed with appropriate solvents that enhance its solubility to prevent any complications, as precipitate formation can lead to complications during intravenous administration. In contrast, Ativan (lorazepam) is usually more soluble in the types of solutions mentioned and is less likely to cause precipitates. Furosemide may have solubility concerns but is generally not associated with precipitate formation in D5W or NS. Gentamicin, an aminoglycoside antibiotic, is also soluble in these fluids and does not typically lead to precipitate formation. Therefore, the unique chemical properties of diazepam regarding solubility make it the medication most notorious for forming precipitate in these particular solutions.

5. Which inventory management process considers order costs and inventory holding costs?

- A. Periodic review**
- B. Just-in-time ordering**
- C. Economic order quantity**
- D. Continuous review**

The economic order quantity (EOQ) model is a fundamental concept in inventory management that specifically takes into account both order costs and inventory holding costs. By calculating the optimal order quantity that minimizes the total costs associated with ordering and holding inventory, businesses can effectively manage their inventory levels. Order costs refer to the expenses incurred every time an order is placed, while inventory holding costs are associated with storing unsold goods, including warehousing, insurance, depreciation, and opportunity costs of the capital tied up in inventory. The EOQ formula derives the ideal number of units to order that balances these two types of costs, ensuring that a business does not order too frequently (which would increase order costs) or hold too much inventory (which would elevate holding costs). This approach is particularly favorable for businesses seeking to optimize their inventory processes, reduce costs, and maintain an efficient supply chain. Utilizing the EOQ model enables pharmacy technicians, among others, to make informed decisions about inventory levels that enhance operational efficiency and control expenses effectively.

6. What solution must filgrastim be administered with?

- A. Normal saline**
- B. Dextrose**
- C. Sterile water**
- D. Lactated Ringer's solution**

Filgrastim is a medication used primarily to stimulate the production of white blood cells in the bone marrow, particularly following chemotherapy or bone marrow suppression. It is important that filgrastim is administered with the correct solution to maintain its stability and efficacy. The correct answer, which is dextrose, is significant because filgrastim is typically diluted in dextrose 5% in water (D5W) for intravenous administration. Dextrose solutions are isotonic and provide a suitable environment for the stability of protein-based medications like filgrastim. In contrast, normal saline and sterile water do not provide the necessary stabilizing conditions that filgrastim requires. Lactated Ringer's solution, while a common intravenous fluid, is not compatible with filgrastim, as the composition may affect the stability or efficacy of the drug. Therefore, using dextrose ensures that the medication is administered safely and effectively.

7. Which factor is NOT typically considered when adding medications to a formulary?

- A. Drug cost**
- B. Side effects**
- C. Brand popularity**
- D. Alternatives not available in the formulary**

When determining which medications to include in a formulary, several key factors are taken into account to ensure patient safety, efficacy, and cost-effectiveness. Brand popularity is not typically one of these considerations. The primary focus for adding medications usually revolves around their therapeutic effectiveness, potential side effects, and whether equivalent alternatives are available. Drug cost is an essential factor since formulary decisions can directly impact the overall healthcare budget and patient access to necessary medications. Side effects are also critically evaluated to minimize risks and ensure that prescriptions do not adversely affect patient health. Additionally, if alternative medications are not available in the formulary, this might lead to decisions regarding the addition of a new drug to ensure that patients have access to effective treatments. Since brand popularity does not inherently correlate with safety, efficacy, or cost, it is not a relevant factor in formulary decision-making.

8. How is gross profit calculated in a pharmacy?

- A. Selling price - purchase price**
- B. Selling price - operating expenses**
- C. Purchase price - costs of sales**
- D. Selling price - total expenses**

Gross profit in a pharmacy is calculated as the selling price minus the purchase price of goods sold. This calculation allows the pharmacy to understand the profit it makes from directly selling its products before considering other expenses. By focusing solely on the revenue generated from sales and the costs associated with acquiring those products, the gross profit provides a clear measure of how effectively the pharmacy is managing its inventory and sales. The other options consider various expenses and costs that go beyond the scope of calculating gross profit. For instance, operating expenses and total expenses would include factors such as rent, salaries, and utilities, which are not relevant when specifically assessing gross profit derived from sales. Thus, the relationship between selling price and purchase price distinctly captures the profitability of the products sold, making it the correct method for calculating gross profit.

9. How can a pharmacist maintain honesty while addressing patient concerns about side effects?

- A. By providing a detailed printed leaflets**
- B. By encouraging self-medication**
- C. By discussing information verbally to alleviate fears**
- D. By dismissing the side effects as irrelevant**

The correct approach for a pharmacist to maintain honesty while addressing patient concerns about side effects is to discuss information verbally to alleviate fears. This method allows for open communication where the pharmacist can provide accurate and comprehensive information about the medication, including potential side effects. It creates an opportunity for patients to ask questions, clarify doubts, and express their worries, which can lead to better understanding and adherence to their medication regimen. Verbal discussions also enable pharmacists to tailor their explanations to the individual patient's level of understanding, addressing specific concerns and providing reassurance. This approach fosters trust and supports the patient-pharmacist relationship, which is essential in encouraging informed decision-making regarding health care. In contrast, providing detailed printed leaflets, while informative, may not engage the patient personally or provide immediate answers to their specific concerns. Encouraging self-medication can lead to unsafe practices and does not promote informed decision-making, while dismissing side effects as irrelevant is not only dishonest but may also damage the trust that is fundamental in the patient-care environment.

10. Which hepatitis A virus vaccine is known to be preservative-free?

- A. Havrix**
- B. Vaqta**
- C. Epaxal**
- D. Avaxim**

Vaqta is the hepatitis A virus vaccine recognized for being preservative-free, which is a significant consideration for patient safety and comfort. Many individuals prefer or require vaccines that do not contain preservatives due to potential sensitivities or concerns regarding additional chemicals in their medications. Havrix, Epaxal, and Avaxim, while effective vaccines against hepatitis A, may contain preservatives or additives that are not present in Vaqta. This means that Vaqta can be a preferred option, particularly for those with specific allergic reactions or preferences regarding vaccine formulation. Thus, recognizing Vaqta for its preservative-free formulation highlights its suitability for certain patients, especially those in sensitive demographics like children or individuals with compromised immune systems.