Allergic Rhinitis, Asthma and COPD Therapeutics Practice Test (Sample)

Study Guide

Everything you need from our exam experts!

Copyright © 2025 by Examzify - A Kaluba Technologies Inc. product.

ALL RIGHTS RESERVED.

No part of this book may be reproduced or transferred in any form or by any means, graphic, electronic, or mechanical, including photocopying, recording, web distribution, taping, or by any information storage retrieval system, without the written permission of the author.

Notice: Examzify makes every reasonable effort to obtain from reliable sources accurate, complete, and timely information about this product.

SAMPLE

Questions

SAMPLE

1. **During day-to-day adjustments in therapy, what is recommended when using a combo ICS-formoterol inhaler?**
   - **A. To stop using the inhaler altogether**
   - **B. To increase usage during worsening symptoms**
   - **C. To use only the reliever inhaler**
   - **D. To switch to a different therapy**

2. **Which of the following is NOT a component of COPD exacerbation treatment?**
   - **A. Bronchodilators**
   - **B. Corticosteroids**
   - **C. Vaccination**
   - **D. Antibiotics**

3. **How long may it take to see the effectiveness of intranasal steroids?**
   - **A. Immediate relief is typical**
   - **B. Minutes to hours**
   - **C. Days to weeks**
   - **D. Weeks to months**

4. **According to the Methamphetamine Epidemic Act of 2005, what is the maximum amount of pseudoephedrine that can be purchased in a 30-day period?**
   - **A. 6g**
   - **B. 9g**
   - **C. 12g**
   - **D. 15g**

5. **Which of the following is an example of a first generation antihistamine?**
   - **A. Cetirizine**
   - **B. Diphenhydramine**
   - **C. Loratadine**
   - **D. Fexofenadine**

SAMPLE

6. What is a contraindication for the use of oral decongestants?

A. Use with antihistamines

B. Use within 14 days of an MAOI

C. Use in children over 12

D. Use in patients with asthma

7. Which medication should not be used in children under 10 years due to risks such as seizures?

A. Dextromethorphan

B. Codeine

C. Benzonatate

D. Guaifenesin

8. What is the extent of use of montelukast in allergic rhinitis?

A. Only as a secondary treatment

B. Primarily for prophylaxis

C. Only for acute attacks

D. Both for regular treatment and in asthma

9. What role does eosinophil count play in COPD treatment decisions?

A. Higher counts indicate a need for surgery

B. It guides the use of ICS in certain groups

C. It is irrelevant to treatment

D. Helps determine the need for hospitalization

10. Which one of the following medications is commonly used for combination therapy in asthma treatment?

A. Montelukast

B. Beclomethasone

C. Albuterol

D. Salmeterol/fluticasone

SAMPLE

Answers

SAMPLE

1. B
2. C
3. C
4. B
5. B
6. B
7. C
8. D
9. B
10. D

SAMPLE

Explanations

SAMPLE

1. During day-to-day adjustments in therapy, what is recommended when using a combo ICS-formoterol inhaler?

A. To stop using the inhaler altogether

B. To increase usage during worsening symptoms

C. To use only the reliever inhaler

D. To switch to a different therapy

When managing asthma or COPD with a combination inhaler that contains an inhaled corticosteroid (ICS) and formoterol, guidance for adjusting therapy emphasizes the importance of increasing the use of the inhaler during periods of worsening symptoms. The rationale for this approach lies in the dual action of the medication: the ICS component works to reduce inflammation and control long-term symptoms, while the formoterol, a long-acting beta-agonist, provides rapid bronchodilation for quick symptom relief. In periods when symptoms worsen, increasing the use of this inhaler can provide both immediate relief through bronchodilation and help manage underlying inflammation over time, assuming the patient is within the recommended guidelines for usage. This is especially vital in asthma management, where step-up therapy may be necessary to regain control of symptoms. In contrast, other options do not align with standard recommendations. Stopping use altogether could lead to uncontrolled symptoms and increased risk of exacerbations. Using only the reliever inhaler would lead to inadequate management of inflammation and might not control symptoms effectively. Switching to a different therapy can also be unnecessarily complicated and may not address the immediate need for symptom relief. Hence, increasing usage during worsening symptoms is a proactive and appropriate strategy in the management of respiratory conditions.

2. Which of the following is NOT a component of COPD exacerbation treatment?

A. Bronchodilators

B. Corticosteroids

C. Vaccination

D. Antibiotics

C. Vaccination is the correct choice because it is not a direct treatment for the exacerbation of Chronic Obstructive Pulmonary Disease (COPD). COPD exacerbations are typically managed with bronchodilators to relieve airway constriction, corticosteroids to reduce inflammation, and, when appropriate, antibiotics to treat or prevent bacterial infections that can worsen respiratory symptoms. Vaccination, while important for preventing respiratory infections such as influenza and pneumonia in COPD patients, does not directly address the acute management of an exacerbation once it occurs. Its role is primarily preventative rather than therapeutic in the context of an active exacerbation. Therefore, while vaccinations can be a crucial part of an overall management strategy for COPD, they are not a component of the immediate treatment of an exacerbation.

SAMPLE

3. How long may it take to see the effectiveness of intranasal steroids?

A. Immediate relief is typical

B. Minutes to hours

C. Days to weeks

D. Weeks to months

Intranasal steroids are commonly used to manage symptoms of allergic rhinitis, and they work by reducing inflammation in the nasal passages. While some patients may experience minimal improvement in symptoms shortly after starting treatment, the full therapeutic effects typically take longer to manifest. It generally takes several days to weeks for intranasal steroids to achieve their maximum effectiveness, as the steroids need time to decrease nasal mucosal inflammation and improve symptoms like nasal congestion, sneezing, and runny nose. This timeframe is critical for healthcare providers to communicate to patients to manage expectations regarding symptom relief. The gradual onset of the full effect can vary among individuals based on factors such as the specific steroid used, dosage, and the severity of symptoms. Therefore, believing that intranasal steroids offer immediate relief would not accurately reflect their pharmacological action. Understanding that patients may need to wait days to weeks helps in patient counseling and adherence to the prescribed treatment regimen.

4. According to the Methamphetamine Epidemic Act of 2005, what is the maximum amount of pseudoephedrine that can be purchased in a 30-day period?

A. 6g

B. 9g

C. 12g

D. 15g

The maximum amount of pseudoephedrine that can be purchased in a 30-day period according to the Methamphetamine Epidemic Act of 2005 is 9 grams. This regulation was implemented to control the sale of pseudoephedrine, which can be used as a precursor in the illicit production of methamphetamine. By limiting the amount that can be purchased, the Act aims to reduce the potential for misuse while still allowing access for legitimate medical use. The 30-day limit of 9 grams is specifically designed to strike a balance between safety and availability; it acknowledges the therapeutic use of pseudoephedrine in treating conditions like nasal congestion while addressing the need to prevent its diversion for illegal manufacturing. This regulation emphasizes the importance of monitoring and controlling certain medications that have the potential for abuse.

SAMPLE

5. Which of the following is an example of a first generation antihistamine?

A. Cetirizine

B. Diphenhydramine

C. Loratadine

D. Fexofenadine

Diphenhydramine is recognized as a first-generation antihistamine due to its chemical structure and pharmacological properties. First-generation antihistamines are known for their ability to cross the blood-brain barrier, leading to central nervous system effects such as sedation. Diphenhydramine is commonly used for the treatment of allergic reactions, motion sickness, and as a sleep aid, demonstrating its versatility among first-generation agents. On the other hand, the other options represent second-generation antihistamines, which are less likely to cross the blood-brain barrier. Cetirizine, Loratadine, and Fexofenadine are designed to minimize sedation and central nervous system effects, making them preferable for long-term use in managing allergic symptoms while reducing unwanted drowsiness. This distinction highlights the characteristic differences between the generations of antihistamines, emphasizing why Diphenhydramine stands out as the correct example of a first-generation antihistamine.

6. What is a contraindication for the use of oral decongestants?

A. Use with antihistamines

B. Use within 14 days of an MAOI

C. Use in children over 12

D. Use in patients with asthma

The contraindication for the use of oral decongestants is associated with concurrent use within 14 days of a monoamine oxidase inhibitor (MAOI). This is important because MAOIs can influence the metabolism of certain neurotransmitters, leading to an increased risk of hypertensive crises when decongestants, which often act on adrenergic receptors, are introduced. Decongestants can elevate blood pressure and stimulate the cardiovascular system; when combined with MAOIs, this can result in dangerously high blood pressure due to the cumulative effects on sympathetic nervous system activity. Understanding this interaction is crucial for safe therapeutic practices. For instance, patients who are already on MAOIs for depression or other psychiatric conditions must be closely monitored or advised against using oral decongestants to avoid serious cardiovascular risks. Other scenarios, such as using decongestants with antihistamines or in older children, do not generally present the same degree of risk. While one should always evaluate individual patient situations, these combinations are typically considered safe under most circumstances. In the case of asthma patients, decongestants are not absolute contraindications, although caution should be exercised due to potential cardiovascular effects.

SAMPLE

7. Which medication should not be used in children under 10 years due to risks such as seizures?

A. Dextromethorphan

B. Codeine

C. Benzonatate

D. Guaifenesin

The correct answer is that benzontate should not be used in children under 10 years due to the risk of serious side effects, including seizures. Benzonatate works by numbing the throat and lungs, which helps to suppress the cough reflex. However, one of the concerning side effects in pediatric populations is the potential for severe neurological reactions, including seizures, particularly when used in children who may not fully understand how to take the medication safely. Benzonatate's risk profile necessitates a cautious approach in younger children, and it is generally recommended that it not be prescribed for those under the age of 10 to prevent potential harm associated with its use. In contrast, dextromethorphan is used for cough suppression and is generally considered safer for children over the age of 4. Codeine, while an opioid with its own risks, has been restricted due to concerns about respiratory depression in children, particularly those under 12, but not specifically under 10, making it still relatively more accepted than benzontate in this age group. Guaifenesin is an expectorant that is considered safe for use in children over the age of 2, focusing on relieving congestion rather than suppressing coughs.

8. What is the extent of use of montelukast in allergic rhinitis?

A. Only as a secondary treatment

B. Primarily for prophylaxis

C. Only for acute attacks

D. Both for regular treatment and in asthma

Montelukast is a leukotriene receptor antagonist that plays a versatile role in managing allergic rhinitis and asthma. Its use is established in both regular treatment and as an adjunctive therapy for asthma. In the context of allergic rhinitis, montelukast acts by blocking leukotriene receptors, which are involved in the inflammatory response associated with allergic reactions. This mechanism helps alleviate symptoms such as nasal congestion, rhinorrhea, itching, and sneezing. While many treatment options for allergic rhinitis, such as intranasal corticosteroids and antihistamines, are used primarily for symptom relief, montelukast can be beneficial for individuals who also have asthma, making it effective for those patients experiencing both conditions. Using montelukast as part of a comprehensive management plan allows for a reduction in the overall symptom burden. It is particularly helpful for individuals who have persistent allergic rhinitis and asthma, as montelukast addresses both conditions. This dual efficacy underscores its role in regular treatment regimens rather than limiting its use to situations such as acute attacks or only secondary treatment. Thus, its versatility in managing both allergic rhinitis and complementing asthma therapy confirms its classification as beneficial for regular treatment in these cases.

SAMPLE

9. What role does eosinophil count play in COPD treatment decisions?

A. Higher counts indicate a need for surgery

B. It guides the use of ICS in certain groups

C. It is irrelevant to treatment

D. Helps determine the need for hospitalization

Eosinophil count plays a significant role in guiding the treatment of Chronic Obstructive Pulmonary Disease (COPD). Particularly, it helps clinicians identify patients who may benefit from inhaled corticosteroids (ICS). In COPD, elevated eosinophil levels are associated with increased airway inflammation and a greater likelihood that the patient will respond to ICS therapy. When eosinophil counts are high, it suggests a potential reversibility of airway inflammation, making the use of corticosteroids more appropriate. This strategy aims to improve asthma symptoms, reduce exacerbations, and enhance overall lung function. Conversely, patients with low eosinophil counts may not gain the same benefit from ICS, leading clinicians to consider alternative treatments that may be more effective for managing their condition. This understanding of eosinophil levels allows for more personalized treatment approaches, optimizing outcomes and addressing the specific inflammatory characteristics of a patient's COPD.

10. Which one of the following medications is commonly used for combination therapy in asthma treatment?

A. Montelukast

B. Beclomethasone

C. Albuterol

D. Salmeterol/fluticasone

The choice of salmeterol/fluticasone as a combination therapy in asthma treatment is grounded in its dual purpose of providing both a long-acting bronchodilator and an inhaled corticosteroid. Salmeterol, a long-acting beta-agonist, works by relaxing the muscles around the airways, thereby improving airflow and easing breathing over an extended period. Fluticasone, on the other hand, is an inhaled corticosteroid that reduces inflammation within the airways, addressing the underlying inflammatory component that is characteristic of asthma. This combination is particularly effective because it offers both immediate relief from bronchoconstriction through the bronchodilator and long-term control of inflammation and asthma symptoms, which is essential for preventing exacerbations. This makes salmeterol/fluticasone a preferred option in many treatment plans for patients with persistent asthma. Other medications listed, such as montelukast, beclomethasone, and albuterol, play important roles in asthma management. Montelukast is a leukotriene receptor antagonist used in some patients, particularly those with allergic rhinitis. Beclomethasone is an inhaled corticosteroid but is not typically combined with another active ingredient in a single inhaler like sal

SAMPLE