April 2008 – Asthma

NB: Manual completion of CPD questionnaires is no longer possible and can now be done online via www.cpdjournals.org.za, where answers and printed certificates are also available. Questions may be answered up to 6 months after publication of each issue.

CHRONIC ADULT ASTHMA CARE – MAXIMISING THE POTENTIAL OF THE CONSULTATION

1. **A 38-year-old female patient with a diagnosis of asthma attends for routine follow up. She has a history of allergic rhinitis and urticaria with aspirin use. She has a history of childhood asthma which cleared up at the age of 18 years and started again at the age of 35 years. Her younger sister has asthma. She is currently taking salbutamol 200 µg prn, budesonide 400 µg bd, beclomethasone nasal spray 100 µg bd and Phenergan 25 mg nocte. You assess her as having partly controlled asthma. You decide to step up her asthma medication. Which one of the following options is the best one?**
   A. Replace budesonide with salmeterol
   B. Add long-term oral steroids
   C. Increase to 800 µg budesonide bd
   D. Add salmeterol 50 µg bd
   E. Add aminophylline 100 mg bd.
2. **A 43-year-old man attends for right-sided chest pain. He has a dry cough and complains of shortness of breath when he runs for the taxi. No night sweats or weight loss. His chest feels tight when he gets up in the morning and he coughs a lot. In the medical record he has presented in a similar way on a number of occasions over the last few years and has been prescribed salbutamol to use prn. At some of the visits the doctor has written 'asthma' and at others 'COPD'. Which one of the following would most help you distinguish between these two diagnoses?**
   A. Chest radiograph
   B. Presence of wheezing on examination
   C. History of productive sputum
   D. History of smoking for 3 years
   E. Effect of 400 µg salbutamol on the PEF rate.

ASTHMA ASSESSMENT, DIAGNOSIS AND MANAGEMENT IN YOUNG CHILDREN

3. **True (A) or false (B) – fill in only block A or B:**
   Wheeze in a young child is always a symptom of asthma.
4. **True (A) or false (B) – fill in only block A or B:**
   RSV infection can predispose to recurrent wheeze.
5. **True (A) or false (B) – fill in only block A or B:**
   High-risk children should be treated with inhaled steroids regardless of age.

ASTHMA: SECOND-LINE THERAPIES

6. **True (A) or false (B) – fill in only block A or B:**
   For asthma patients not controlled on inhaled corticosteroids alone, the preferred option for additional controller therapy is the long-acting beta-agonists.
7. **Choose one correct statement:**
   As reliever therapy:
   A. The short-acting beta-agonists are not the bronchodilator of choice
   B. Anticholinergic agents produce as much bronchodilatation as short-acting beta-agonists
   C. The addition of anticholinergic agents to the short-acting beta-agonists is associated with enhanced bronchodilating activity
   D. Both short-acting beta-agonists and anticholinergic agents have anti-inflammatory activity
   E. Ipratropium bromide appears to be of increased benefit in certain patient groups with beta-adrenergic receptor polymorphisms.
8. **Choose one correct statement with regard to asthma therapy:**
   A. Most controller medications have documented anti-inflammatory activity
   B. Adding a theophylline to inhaled corticosteroids has an effect significantly inferior to doubling the dose of inhaled corticosteroid
   C. Chromones are suitable alternative controller agents
   D. Anti-IgE therapy is cheap and simple to use
   E. Leukotriene receptor antagonists have limited value in long-term asthma therapy.

DIFFICULT ASTHMA

9. **True (A) or false (B) – fill in only block A or B:**
   Beta-blocker eye drops may be a cause of resistant asthma.
10. **True (A) or false (B) – fill in only block A or B:**
    Obesity is commonly associated with poor asthma control.
11. **True (A) or false (B) – fill in only block A or B:**
    All patients with difficult asthma need to be on high-dose inhaled corticosteroids.

ASTHMA: PRIMARY THERAPIES

12. **True (A) or false (B) – fill in only block A or B:**
    Both LABA and ICS have mutually synergistic mechanisms of action that augment their effects at receptor level.
13. **Choose the correct answer:**
    A. Beta blockers cause smooth-muscle relaxation
    B. HFA medications have the same particle size as CFC medication
    C. Steroids have no effect on eosinophilic inflammation
    D. Nitric oxide is increased in exhaled breath in uncontrolled inflammation
    E. Fixed airway obstruction does not occur in asthma.
14. **Choose the correct answer:**
    A. Leukotriene modifiers act on the same pathways as steroids
    B. Steroids exert most of their effects within the nucleus of cells
    C. Fixed combination inhalers are not as effective as monocomponent inhalers
    D. Steroids have no effect on bronchial hyper-responsiveness
    E. Fixed combination inhalers do not increase compliance.

ASTHMA VERSUS COPD: WHAT IS THE DIFFERENCE?

15. **Choose one correct answer:**
    A. A history of smoking excludes the diagnosis of asthma
    B. Hyperinflation of the chest in an asymptomatic patient is indicative of either asthma or COPD
    C. An increase of 15% in PEF in response to administration of inhaled 400 µg salbutamol negates a diagnosis of asthma
    D. COPD patients may demonstrate significant airflow reversibility in response to corticosteroids
    E. Maintenance-dose inhaled corticosteroids are not warranted in patients with asthma unless they have demonstrated a response to a trial of oral corticosteroids.
16. **True (A) or false (B) – fill in only block A or B:**
    Viral respiratory tract infections are common precipitants of acute exacerbations of both asthma and COPD.

ASTHMA IN SPECIAL SITUATIONS

17. **Which one of the following facts applies to asthma in pregnancy:**
    A. Asthma deteriorates during pregnancy
    B. Asthma adversely affects pregnancy outcomes
    C. Inhaled long-acting B_2 agonists are contraindicated in pregnancy
    D. The management of status asthmaticus differs in pregnancy compared with the non-pregnant state.
18. **True (A) or false (B) – fill in only block A or B:**
    Asthma is more severe in the elderly.

EXERCISE-INDUCED ASTHMA

19. **Choose one correct statement:**
    A. EIA is a distinct phenotype of asthma
    B. EIA occurs in 5% of asthmatics
    C. Cough is the most frequent presenting symptom in schoolchildren with EIA
    D. Rapid-acting B_2 agonists are the most effective drugs for preventing EIA
    E. B_2 agonists may be used freely in competitive sports.
20. **True (A) or false (B) – fill in only block A or B:**
    The hyperosmolarity theory of EIA involves evaporation of water from the airway during exercise as a cause of EIA.

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