

## ASSESSMENT OF 30 MCQS

## INSTRUCTIONS

- κ Attempt the following multiple choice questions.
- κ There is only one correct option for each question. Choose the most appropriate answer for each question and shade your choice on the given answer sheet using a 2B pencil.
- κ The answer sheet should be sent to the College of Family Physicians (Singapore) for marking.

## QUESTIONS

1. Which of the following is NOT a cause of recurrent wheeze?
  - a) Left ventricular failure
  - b) Foreign body aspiration
  - c) Chronic obstructive airway disease
  - d) Pulmonary thromboembolism
  - e) Airway obstruction by metastatic lymph node.
2. A 23-year-old man presents with an episode of asthmatic attack. Which ONE of the following features suggests that he is having a severe attack?
  - a) Respiratory rate 24 per minute
  - b) Pulse rate 110 per minute
  - c) Rapid shallow breathing
  - d) PEF 150 L/min
  - e) Loud rhonchi bilaterally.
3. With regards to the classification of asthma severity by clinical features before treatment, which of the following statements is NOT TRUE?
  - a) In severe persistent asthma, the PEF is 60-80% predicted with a variability of more than 30%
  - b) In intermittent asthma, the symptoms occur less than once a week
  - c) In moderate persistent asthma, symptoms occur daily.
  - d) In mild persistent asthma, nocturnal symptoms occur more than twice a month.
  - e) In intermittent asthma, nocturnal symptoms occur less than twice a month.
4. Spirometry tests are used to demonstrate all of the following in bronchial asthma EXCEPT:
  - a) Airflow limitation
  - b) Functional respiratory reserve
  - c) Reversibility of airflow limitation over time
  - d) Hyperresponsiveness by using challenge tests
  - e) Reversibility of airflow limitation with inhalation of a bronchodilator.
5. Which of the following is the LEAST likely factor to precipitate the development of asthma in a predisposed individual?
  - a) Tobacco smoke
  - b) Air pollution
  - c) Respiratory infection
  - d) Weather changes
  - e) Fatigue.
6. A 24-year-old secretary with recent onset asthma presented with an upper respiratory infection and persistent cough and wheeze. She wants more ventolin MDI. You ask about night symptoms and find out that she has been waking up to take ventolin MDI 2-3 times per night about 1-2 times per week for the past 2 months. You should start her on
  - a) Oral montelukast
  - b) Inhaled combination of steroid and long acting beta agonist
  - c) A course of antibiotics
  - d) Oral theophylline
  - e) Oral bambuterol.
7. A 47-year-old Malay woman comes to your clinic at 9 PM with acute wheezy dyspnoea and asks for nebulized medication. She had been treated for the same problem at the polyclinic last month but the polyclinic is now closed. She has never been admitted to hospital. Which one of the following is TRUE:
  - a) She has low risk asthma
  - b) She has intermittent asthma
  - c) A home nebulizer is indicated
  - d) Low dose inhaled steroid treatment will not prevent these attacks
  - e) Low dose inhaled steroid in the long term will reduce her risk of dying dramatically.
8. A 45-year-old asthmatic man becomes even more wheezy, cyanosed and very distressed during nebulizer treatment for an acute asthma attack in your clinic. You should call the ambulance and
  - a) Stop the nebulizer treatment
  - b) Continue the nebulization, give stat doses of oral prednisolone 40 mg and s/c adrenaline
  - c) Give him an injection of aminophylline plus hydrocortisone
  - d) Stop the nebulizer and give an injection of adrenaline
  - e) Start CPR.
9. A 55-year-old man had just been successfully treated for an acute asthma attack in your clinic. He had hypertension and is on a "selective" beta antagonist for BP control. He wants to know how another attack can be prevented effectively and safely.
  - a) It is NOT safe to continue his anti-hypertensive medication
  - b) Oral steroids should be avoided in this patient

A steroid injection would be more effective than oral prednisolone to speed up recovery

An anti biotic should also be prescribed if oral prednisolone is started

The oral prednisolone treatment should be tailed gradually and not stopped suddenly.

10. **A 38-year-old teacher wants more ventolin inhaler. She says that the inhaled steroid medication is expensive, not effective and is making her lose her hair. You should**
  - a) prescribe the ventolin inhaler
  - b) prescribe a hair restorer
  - c) prescribe montelukast
  - d) prescribe oral bambuterol
  - e) re-educate her about the benefits of long term, low dose inhaled steroid therapy
11. **Which of the following statements about the diagnosis of asthma in children is FALSE?**
  - a) Asthma can present as chest pain
  - b) Asthma needs to be considered when a child presents with recurrent pneumonia or chest infection
  - c) Wheezing is the most reliable clinical symptom for diagnosing asthma in children
  - d) The typical presentation of asthma in children is recurrent cough and wheezing
  - e) PEF and spirometry is useful in older children.
12. **Which of the following is an indicator of moderate persistent asthma in a child?**
  - a) Daily use of beta 2 agonist
  - b) Night time symptom of more than 2 times per month but less than once a week
  - c) Continuous symptoms that limit physical activity
  - d) Require the use of inhaled corticosteroid
  - e) Require the sustained use of oral corticosteroid.
13. **Under the step approach recommended for the management of asthma in children, which of the following will be considered to be a Step 4 level of treatment recommendation?**
  - a) Intermittent use of short acting bronchodilators
  - b) Intermittent use of corticosteroid at any level of dosage
  - c) Daily use of inhaled low dose corticosteroid
  - d) Daily use of medium dose inhaled corticosteroid
  - e) Daily use of high dose inhaled corticosteroid.
14. **Which of the following statements regarding the use of steroids in children is TRUE?**
  - a) Steroid phobia as a cause of non-compliance is less frequently encountered in children than in adult patients
  - b) In childhood asthma, the effect of chronic illness on height velocity is greater than the effect of inhaled corticosteroids on height velocity
  - c) Non-steroidal anti-inflammatory agents such as sodium cromoglycate and nedocromil sodium are more effective than inhaled corticosteroids
  - d) Leukotriene receptor antagonist such as montelukast should not be combined with inhaled corticosteroids
  - e) For inhaled corticosteroids, the risk/benefit ratio is not affected by the dosage of the corticosteroid used.
15. **Which of the following statements about inter current infection and asthma in children is FALSE?**
  - a) A good asthma action plan can prevent asthma exacerbation
  - b) A young child usually gets between 6 to 9 viral infections a year
  - c) Upper respiratory tract infection can trigger an asthma attack
  - d) Repeated bouts of poorly managed upper respiratory tract infection can cause asthma in children
  - e) An increase in the dose of inhaled corticosteroid may be necessary
16. **Which of the following is NOT an anti-inflammatory drug that is used in the management of asthma?**
  - a) Montelukast
  - b) Nedocromil sodium
  - c) Budesonide
  - d) Ipratropium bromide
  - e) Sodium cromoglycate.
17. **Which of the following statements about leukotriene modifiers is FALSE?**
  - a) They are more effective than inhaled corticosteroids when used as monotherapy
  - b) They can be used as add-on therapy to reduce the dose of inhaled corticosteroids
  - c) Their advantage is that they can be administered orally as a tablet
  - d) They are especially effective in patients with aspirin sensitive asthma
  - e) They have a small and variable bronchodilator effect.
18. **Which of the following is consistent in a patient that is considered to have in the "intermittent" grade of asthma severity?**
  - a) Daily use of inhaled short acting beta 2 agonist
  - b) Experience symptoms less than once a week
  - c) Daily exacerbations that affect sleep
  - d) PEF of between 60% to 80%
  - e) Unable to go jogging because of symptoms.
19. **Mrs Y is an asthma patient with mild persistent asthma. She is well controlled on low dose inhaled corticosteroid. She has amenorrhea for 7 weeks and her urine hCG is positive. Which of the following action would be INCORRECT?**
  - a) Tell her that her asthma may become worse during her pregnancy
  - b) Tell her that there should be no difference in the outcome of her pregnancy if her asthma is well controlled
  - c) Tell her that poorly controlled asthma may have an adverse effect on the foetus
  - d) Tell her that she must discontinue the use of inhaled corticosteroid
  - e) Tell her that some drugs that are used in asthma treatment had NOT been proven to be safe in pregnancy.
20. **Which of the following statements about methylxanthines is FALSE?**
  - a) They have anti-inflammatory effects
  - b) They must be used with extra caution in patients with ischaemic heart disease
  - c) There is significant drug interaction with erythromycin
  - d) Palpitation and insomnia are common side-effects
  - e) They should only be used in patients with severe asthma.
21. **Asthma Action Plan**
  - a) is a guide for physicians to act based on changes in the patient's severity of asthma
  - b) is a written self-management guide for patients to make adjustments to their asthma treatment
  - c) is a set of written instructions based on age groups of the asthma patients
  - d) is developed by the patient based on his own response to treatment
  - e) should be memorized by patients so that they can act quickly without the need to refer to written instructions.

22. **The main aim of the asthma action plan is to**
- reduce the total dose of inhaled corticosteroids
  - tell patients when they need to be admitted to hospitals
  - abort exacerbations by timely stepping up of reliever and preventive medication
  - rapidly wean patient off inhaled corticosteroids
  - shorten the duration of hospitalization.
23. **In the instructions of the asthma action plan, when should a patient seek urgent medical care?**
- When wheezing is audible
  - When night cough occurs on 3 consecutive nights
  - When he needs to step up the bronchodilator dosage
  - When he develops a fever
  - When there is no improvement within 2 to 6 hours after oral glucocorticosteroid treatment is started.
24. **Which of the following factors will be the most effective way to increase a patient's compliance with the asthma action plan?**
- Affordability of medication is taken into consideration in devising the plan
  - Explaining the concept of evidence based medicine to patients
  - Incorporate colorful charts and diagrams in the plan
  - Use of high impact photographs of complications of asthma
  - Keeping it updated according to the latest available guidelines.
25. **The following are indicators of poor clinical outcome of asthma management EXCEPT**
- Use of more than 2 units of inhaled reliever medication per month
  - hospital admission for asthma.
  - any episode of acute exacerbation that requires the use of nebulised medication within the year
  - use of "short burst oral steroids" on 2 or more occasions per year
  - long-term use of oral corticosteroids.
26. **With regards to environmental allergens provoking asthmatic symptoms, which of the following statements is NOT true?**
- Cockroach body parts are an important indoor allergen
  - The sensitivity to environmental allergens decreases with age
  - Animal dander is an important indoor allergen
  - Food allergens are a common precipitant of asthmatic symptoms
  - Peak expiratory flow rates improve when patients avoid environmental allergens to which they are sensitive to.
27. **With regards to the house dust mite, which of the following statements is NOT true?**
- Covering pillows, mattresses and blankets with plastic is effective in reducing the mite population
  - Washing all sheets, pillow cases, and blankets weekly with hot water at a temperature greater than 65 degrees Centigrade is effective in reducing the mite population
  - Vacuuming is effective in removing live mites from carpets
  - Mite allergens are present in the body parts of the mite, secreta and excreta
  - Air-conditioning is effective in reducing the mite population.
28. **Which of the following equipment is the MOST effective in reducing mite growth?**
- Air-conditioner
  - Evaporative coolers
  - Humidifiers
  - Wet vacuum cleaners
  - Indoor air-purifiers.
29. **Which of the following is the LEAST useful measure to control animal antigens that precipitate asthmatic attacks?**
- Keeping pets outdoors
  - Keeping the bedroom doors closed all the time
  - Removing upholstered furniture and carpets from the home
  - Weekly washing of the pet
  - Exclusion of hamsters from the home.
30. **Which of the following statements on occupational asthma is NOT correct?**
- Occupational asthma should be suspected in all new cases of adult onset asthma
  - The asthma symptoms in occupational asthma may occur several hours after exposure
  - Disinfectants and latex may be the cause of occupational asthma in healthcare providers
  - In occupational asthma, the hallmark is the worsening of asthma during days off and holidays
  - Chromium may be a cause of occupational asthma in welders.