

Acute bronchitis in children

Simple choice

1. Mark the most common etiological factor of acute bronchitis in children:
 - a) Food allergens
 - b) Protozoa
 - c) Bacteria
 - d) Fungi
 - e) Viruses
2. Clinical examination in acute bronchitis in children finds the following change:
 - a) Crackles
 - b) Unilateral dullness
 - c) Vesicular murmur
 - d) Wet diffuse rhonchi that change after coughing
 - e) Located adventitious sounds
3. Indicate the type of cough in the onset of acute bronchitis in children:
 - a) Productive with sputum
 - b) Barking (spastic)
 - c) Paroxysmal (in bouts)
 - d) Dry
 - e) Staccato
4. Indicate the difference between acute obstructive bronchitis and acute simple bronchitis in children?
 - a) Wheezing
 - b) Productive cough
 - c) Fever
 - d) Barking cough
 - e) Dry cough
5. Mark the radiological aspect that is not characteristic for acute bronchiolitis in children?
 - a) Bronchial wall thickening
 - b) Tram-track opacities
 - c) Lobar infiltrates
 - d) Atelectasis
 - e) Hyperinflation
6. Which of clinical symptoms is not characteristic for bronchiolitis in children:
 - a) Chest retractions
 - b) Polypnea, tachypnea
 - c) Diffuse fine adventitious sounds
 - d) Localized crackles
 - e) Wheezing
7. Mark the most common pathogen identified in the etiology of acute bronchiolitis in children:
 - a) Respiratory syncytial virus
 - b) Influenza virus type A₁
 - c) Influenza virus type A₂
 - d) Parainfluenza viruses
 - e) Enteroviruses
8. Which of the statements does not characterize acute bronchiolitis in children:
 - a) Affects small airways (bronchioles)
 - b) It is caused by viruses
 - c) Wheezing
 - d) Inspiratory dyspnea
 - e) Tachypnea
9. Choose the compulsory clinical sign in acute simple bronchitis in children:
 - a) Dullness on percussion
 - b) Diffuse wet rhonchi
 - c) Localized crepitation
 - d) Infectious syndrome

- e) Dyspnoea
10. Which group of drugs is used in the treatment of acute simple bronchitis in children:
- a) Antibiotics
 - b) Bronchodilators
 - c) Anticoagulants
 - d) Cough suppressants
 - e) Expectorants
11. Antibiotics in the treatment of acute bronchitis in children are used in the case of:
- a) Viral infection
 - b) Bacterial infection
 - c) Fungic infection
 - d) High fever
 - e) Wet cough
12. Which of diseases is characterized by frequent, acute wet cough?
- a) Acute stenosis of the larynx
 - b) Acute simple bronchitis
 - c) Bronchial asthma
 - d) Pleurisy
 - e) Cystic fibrosis
13. Indicate the method of choice to confirm the diagnosis of acute simple bronchitis
- a) Chest X-ray
 - b) Lung function test
 - c) Lung scintigraphy
 - d) Electrocardiography
 - e) Clinical examination
14. Select the preferred route of antibiotics administration in children?
- a) Oral
 - b) Intramuscular
 - c) Intravenous
 - d) Subcutaneous
 - e) Rectal
15. Mark the pathogenic mechanism of the development of acute bronchiolitis in children:
- a) Chronic inflammation of the airways
 - b) Acute inflammation of the distal segments of the airways
 - c) Increased salt mass on airway surfaces
 - d) Compression of lung tissue
 - e) Impairment of surfactant function
16. Select the clinical sign in differential diagnosis between pneumonia and bronchiolitis in children:
- a) Dyspnoea
 - b) Decreased vesicular murmur
 - c) Chest retractions
 - d) Unilateral dullness
 - e) Diffuse adventitious sounds
17. Which of diseases is characterized by expiratory *wheezing* in children:
- a) Acute pharyngitis
 - b) Acute stenosing laryngitis
 - c) Acute obstructive bronchitis
 - d) Epiglottitis
 - e) Pneumonia
18. Which of diseases is characterized by inspiratory stridor in children:
- a) Pneumonia
 - b) Laryngeal obstruction
 - c) Asthma exacerbation
 - d) Bronchiolitis
 - e) Cystic fibrosis

19. Select the bronchodilator drug:
 - a) Salbutamol
 - b) Ambroxol
 - c) Bromhexine
 - d) Carbocisteine
 - e) Acetylcysteine
20. Select the pharmacological action of salbutamol:
 - a) Selective β_2 -adrenergic receptor stimulation
 - b) α - and β -adrenergic receptors stimulation
 - c) α -adrenergic receptors antagonist
 - d) β -adrenergic receptors antagonist
 - e) neselective adrenerjc receptor stimulation

Multiple choice

1. Factors that increase the risk of acute obstructive bronchitis include:
 - a) Malnutrition
 - b) Rickets
 - c) Atopic dermatitis
 - d) Passive smoking
 - e) Bottle feeding
2. Select the physical examination findings in acute simple bronchitis in children:
 - a) Localized dullness
 - b) Prolonged expiration
 - c) Normal resonance on percussion
 - d) Diffuse wet rhonchi
 - e) Bronchophony
3. Select the physical examination findings in acute obstructive bronchitis in children
 - a) Chough
 - b) Inspiratory dyspnea
 - c) Stridor
 - d) Expiratory wheezing
 - e) Localized dullness
4. Which of indices characterizes the severity of bronchiolitis in children
 - a) $SaO_2 < 90\%$
 - b) $PaO_2 \leq 60$ mmHg
 - c) $PaCO_2 > 40$ mmHg
 - d) $SaO_2 > 96\%$
 - e) $PaCO_2 \leq 45$ mmHg
5. Select the possible outcomes of acute obstructive bronchitis:
 - a) Full recovery
 - b) Recurrent *wheezing*
 - c) Bronchial asthma
 - d) Chronic lung disease
 - e) Cystic fibrosis
6. Which statements are characteristic for acute bronchiolitis in children?
 - a) Occurs mainly in infants
 - b) Frequently affects children of school age
 - c) Inflammation of the distal segments of the airways
 - d) Most common of bacterial etiology
 - e) Obstruction of bronchioles
7. Select the physical examination findings in acute bronchiolitis in children:
 - a) Tachypnea
 - b) Emphysematous chest
 - c) Unilateral dullness

- d) Diffuse crepitations
 - e) Prolonged expiration
8. Select the methods for improving airway clearance in acute bronchitis in children:
- a) Administration of systemic enzymes
 - b) Fluidisation of the mucus
 - c) Adequate fluid intake
 - d) Postural drainage
 - e) Chest physiotherapy
9. Which statements are characteristic for infection with respiratory syncytial virus (RSV) in children?
- a) Reinfection with RSV occurs frequently at all ages
 - b) Breast-feeding is considered protective factor
 - c) The first infection is usually the most severe, may require hospitalization
 - d) RSV reinfections are more likely to be limited to the upper respiratory tract
 - e) Forms long-lasting immunity
10. Antiviral therapy for severe RSV disease is indicated in the following cases of acute bronchiolitis:
- a) Premature infants who are younger than 1 year chronological age at the RSV infection
 - b) Infants with chronic lung disease
 - c) Infants with mild RSV infection
 - d) Infants with hemodynamically significant congenital heart disease
 - e) Preschool children with severe RSV infection
11. Pharmacological management of acute bronchiolitis does not include routinely the use of:
- a) Oxygen supply
 - b) Cardiac glycosides
 - c) Glucocorticosteroids
 - d) Antibiotics
 - e) Bronchodilators
12. Treatment of acute simple bronchitis with purulent expectoration in children includes:
- a) Antibiotics
 - b) Antivirals
 - c) Chest physiotherapy
 - d) NSAIDs
 - e) Mucolytics
13. Treatment of bronchoobstructive syndrome includes:
- a) beta 2 - agonists
 - b) Anticholinergics
 - c) Leukotriene antagonist
 - d) Inhaled corticosteroids
 - e) Antibiotics
14. Admission criteria in children with obstructive bronchitis:
- a) Chronic lung or heart disease
 - b) Dyspnea and intercostal retractions, indicating respiratory distress
 - c) Age younger than 3 months
 - d) Parent unable to care for child at home
 - e) Diffuse, fine wheezing
15. Select the possible complications of acute bronchiolitis in children?
- a) Severe respiratory failure
 - b) Pneumonia
 - c) Chronic lung disease
 - d) Dehydration
 - e) Cystic fibrosis
16. Expiratory wheezing is characteristic for following disorders:
- a) Acute obstructive bronchitis
 - b) Bronchial asthma
 - c) Croup
 - d) Pharyngeal abscess

- e) Acute uncomplicated pneumonia
17. Evaluation of a schoolchild with acute simple bronchitis includes the following studies:
- a) Complete blood count
 - b) Procalcitonin levels
 - c) Bronchography
 - d) Chest X-ray
 - e) Lung function test
18. *Wheezing* is a common complaint in the following respiratory disorders:
- a) Bronchial asthma
 - b) Acute obstructive bronchitis
 - c) Bronchiolitis
 - d) Right middle lobe syndrome
 - e) Pneumonia
19. Specify the mechanism of action of β_2 -agonists:
- a) Inhibits binding of circulating histamine to its receptor site
 - b) Smooth muscle relaxation and bronchodilation
 - c) Reduce airway resistance
 - d) Increase airway resistance
 - e) Decrease volume of airway secretions
20. Long-term daily peak flow rate monitoring may assist with the following measures:
- a) Detecting early changes in asthma that may require therapy
 - b) Evaluating responsiveness to changes in therapy
 - c) Giving a quantitative measurement of improvement
 - d) Identifying temporal relationships between environmental exposures and bronchospasm
 - e) Evaluating inflammation severity in the lower airways
21. Bronchial obstruction in older children can be caused by the following pathophysiological alterations:
- a) Compression of the airways
 - b) Immotile cilia
 - c) Mucus hypersecretion
 - d) Mucosal swelling
 - e) Bronchial spasm
22. Bronchial obstruction in infants can be caused by the following pathophysiological alterations:
- a) Mucosal swelling
 - b) Mucus hypersecretion
 - c) Bronchial spasm
 - d) Immotile cilia
 - e) Decreased diaphragmatic excursion
23. Indicate the drugs with bactericidal activity:
- a) Penicillins
 - b) Cephalosporins
 - c) Tetracycline
 - d) Aminoglycosides
 - e) Macrolides
24. Indicate the drugs with bacteriostatic activity:
- a) Penicillins
 - b) Macrolides
 - c) Cephalosporins
 - d) Carbopenems
 - e) Tetracycline

Correct answers

Complement simplu

1. E
2. D
3. D
4. A
5. B
6. D
7. A
8. D
9. B
10. E
11. B
12. B
13. E
14. A
15. B
16. D
17. C
18. B
19. A
20. A

Complement multiplu

1. C,D,E
2. B,C,D
3. A,D
4. A,B,C
5. A, B,C
6. A,C,E
7. A,B,D,E
8. B,C,D,E
9. A,B,C,D
10. A,B,D
11. B,C,D,E
12. A,C,E
13. A,B,C,D
14. B,C,D
15. A,B,D
16. A,B
17. A,B,D,E
18. A,B,C
19. B,C
20. A,B,C,D
21. C,D,E
22. A,B
23. A,B,D
24. B,E