

1. A 40-year-old patient has acute onset of disease caused by overexposure to cold. Temperature has increased up to 39°C. Foul-smelling sputum is expectorated during coughing. Various moist crackles can be auscultated above the 3rd segment on the right. Blood test: leukocytes - $15,0 \cdot 10^9/l$, stab neutrophils - 12%, ESR- 52 mm/hour. On X-ray: in the 3rd segment on the right there is a focus of shadow 3 cm in diameter, low density, with fuzzy smooth margins and a clearing in its center. What disease is most likely in the given case?

- A. Cystic echinococcosis
- B. Infiltrative tuberculosis
- C. Peripheral pulmonary cancer
- D. Pulmonary cyst
- E

2. A 32-year-old woman complains of marked shortness of breath, dry cough, a fever of 39°C, and excessive sweating. Bacterioscopy of her sputum detected acid-fast bacteria [+]. Mantoux test with 2 tuberculin units resulted in a papule 21 mm in size. X-ray visualizes numerous symmetrically located focal shadows 1-2 mm in size in both lungs. The shadows are low-intensity and have blurry contours. What is the most likely diagnosis in this case?

- A. Focal tuberculosis
- B. Sarcoidosis
- C. *Miliary pulmonary tuberculosis
- D. Caseous pneumonia
- E. Chronic disseminated pulmonary tuberculosis

3. A 12-year-old child has been diagnosed with bilateral pneumonia of mycoplasma etiology with mild disease course. What drug must be prescribed for treatment in this case?

- A. Aminopenicillins
- B. *Second generation macrolides

C. Antifungal agents

D. First generation cephalosporins

E. Aminoglycosides

4. For the last 2 months, a 29-year-old woman has been complaining of chest pain on the left, cough, shortness of breath, and fever of 39.6°C . Objectively, the left half of her chest lags behind in the act of breathing, her vesicular respiration is weakened, and there is a shortening of the percussion sound on the left. X-ray shows a round shadow in the lower lobe of the left lung. Make the diagnosis:

A. *Lung abscess

B. Pleural empyema

C. Lung cancer

D. Chronic pneumonia

E. Purulent pleurisy

5. A 25-year-old pregnant woman complains of fever of 38.5°C that lasts for two days already, cough, and shortness of breath. She developed these complaints after an overexposure to cold. Auscultation detects crepitation and localized moist crackles in the lower part of the right lung. Percussion detects there a dull sound. Complete blood count shows the following: leukocytes - $11.0 \cdot 10^9/\text{L}$, ESR - 22 mm/hour. What antibacterial agent must be prescribed In this case?

A. Doxycycline

B. Amikacin

C. Carbenicillin

D. *Amoxicillin

E. Levofloxacin

6. A 6-year-old girl complains of body temperature up to 39°C , rhinitis, dry cough, dyspnea. She has been presenting with these signs for 5 days already. On examination her condition is of moderate severity. Her dyspnea is of mixed genesis. Respirations are 28/min., pulse is 120/min. Percussion produces a dull sound in the right lower

segments; in the same area auscultation detects weakened respiration and fine vesicular wet crackles; coarse respiration can be detected on the left. Make the provisional diagnosis:

- A. *Right-sided community-acquired pneumonia
- B. Acute obstructive bronchitis
- C. Stenosing laryngotracheitis
- D. Acute simple bronchitis
- E. Acute bronchiolitis

7. A 47-year-old patient became acutely ill 3 days ago. The patient complains of a fever of 39°C , productive cough with yellow-green sputum, shortness of breath, chest pain on the left. Examination detected the respiratory rate of 26/min. and the shortening of the percussion sound and crepitation below the angle of the scapula on the left. SpO_2 is within normal range (96%). What study would be most informative in this case for establishing the final diagnosis?

- A. Bronchoscopy
- B. Complete blood count
- C. *Chest X-ray
- D. Microbiological study of sputum
- E. Spirography

8. A 27-year-old man complains of dry cough, dyspnea during the slightest exertion, chest pain, and high temperature of 37.3°C that persists for the last 3 weeks. He has a past history of drug abuse. His respiration is rough, without crackles. He has tachycardia of 120/min. X-ray shows interstitial changes on the both sides of his lungs. Bronchoscopy detects *Pneumocystis carinii* in the lavage fluid. What medicine will be the most effective for the treatment of this patient?

- A. Interferon, rimantadine
- B. Cefamezin (cefazolin), nitroxoline
- C. *Biseptol (co-trimoxazole), clindamycin

D. Ampicillin, nifedipine (nifedipine)

E. Erythromycin, rifampin

9. A 12-year-old child has been diagnosed with bilateral pneumonia of mycoplasma etiology with mild disease course. What drug must be prescribed for treatment in this case?

A. Antifungal agents

B. Aminopenicillins

C. First generation cephalosporins

D. *Second generation macrolides

E. Aminoglycosides

10. A 34-year-old man fell ill 3 days ago after an overexposure to cold. He complains of a fever of 39.2°C , marked general weakness, sweating, and cough. The cough was initially dry, but within the last 24 hours a small amount of "rusty" sputum was produced. Objective examination detects herpes on the lips. Percussion reveals a dull sound in the lower pulmonary lobes. Auscultation detects bronchial breathing and tachycardia. No changes were detected in the organs of the abdominal cavity. What is the most likely diagnosis in this case?

A.* Croupous pneumonia

B. Nosocomial pneumonia

C. Exudative pleurisy

D. Community-acquired focal pneumonia

E. Lung abscess

11. A 19-year-old patient complains of a dry cough, muscle pain, and a fever of 39°C . A sore throat and subfebrile body temperature were observed for the last week. Objectively, the respiration is harsh. Complete blood count shows the following: leukocytes - $10.0 \cdot 10^9/\text{L}$, leukocyte left shift, ESR - 26 mm/hour. Chest X-ray shows an intensified pulmonary pattern, low-intensity focal shadows in the lower segments of the right lung. What medicines should be prescribed in this case?

- A. *Penicillin antibiotics
- B. Second or third generation cephalosporins
- C. Aminoglycosides
- D. Macrolides
- E. Sulfanilamides