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**Test “KROK-2” Tasks in  
PULMONOLOGY**

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3 36

**Test "KROK-2" tasks in pulmonology:** a collection of test tasks in  
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Збірник тестових завдань "Тестові завдання КРОК-2 з пульмонології " - для  
підготовки до практичних занять з дисципліни "Внутрішня медицина" іноземним  
студентам 6-го курсу медичного факультету, які навчаються англійською мовою  
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## **INTRODUCTION**

The collection of test tasks “Test “KROK-2” Tasks in PULMONOLOGY” is designed to improve the quality of training of future general practitioners, including general practitioners / family doctors, since in recent decades there has been a significant spread and growth of the pathology of internal organs, especially pulmonological diseases.

In the presented collection of test questions, questions are considered that will be useful in practical work of therapists and will provide substantial assistance to students, interns, general practitioners, family doctors in mastering the problems of diagnosis and differential diagnosis of pulmonological diseases.

The collection of test tasks is built on the basis of the curriculum for the discipline "Internal Medicine", contains a sufficient number of test tasks that reveal the general provisions and a special part of the pathological states in pulmonology. The workshop includes test tasks from recent years from the Testing Center at the Ministry of Health of Ukraine.

The presented collection of test tasks is a rather relevant form of teaching students in higher educational institutions of III-IV accreditation levels from the standpoint of the Bologna process, including preparation for the "KROK-2" licensing exam.

1. The man, 68 years old, called a district doctor in connection with appearance of cough attacks with a small amount of rusty sputum, pain in the right side, associated with deep breathing and cough. In the anamnesis: diabetes mellitus, I type. At the inspection: body temperature 39,2°C, RR 24 per minute, heart rate 114 per minute, AP 110/70; dry skin, hyperemia of cheeks. At the auscultation of the lower lungs on the right: moist, sonorous smallbubly rales. The tactics of a district doctor:

- A. Hospitalization to the internal medicine unit
- B. Examination in polyclinic
- C. Ambulatory treatment
- D. Hospitalization to the endocrinological unit
- E. Hospitalization to the intensive care unit

2. The man, 40 years old, complained on cough with yellow-brown sputum, pain in the right side, connected with deep breathing, sweating. Fell ill after hypothermia 6 days ago. At the inspection: body temperature 39,6°C, RR 26 per minute, heart rate 110 per minute, AP 110/70. In the lower lungs on the right: moist, sonorous smallbubly rales. At the roentgenological research: massive unhomogeneous infiltration with areas of clearing in the lower lobe of the right lung, sinus was differentiated. What complication of the disease developed at the patient?

- A. Fibrinous pleuritis
- B. Abscess
- C. Pleural empyema
- D. Spontaneous pneumothorax
- E. Lung atelectasis

3. The man, 39 years old, a driver-"long-ranger", complains on shortness of breath during physical exertion, cough with a small amount of mucous sputum in the morning. In the anamnesis: COPD for a long time; smokes, drinks alcohol occasionally. At the inspection: body temperature 36,5°C, RR 24 per minute, pulse 90 per minute, AP 120/80. At the auscultation: harsh breathing, a moderate amount of dry, whistling rales. Volume of the forced expiration for 1 sec. is 68% of the proper value. What prophylactic methods must be

primarily conducted to prevent flare of the disease?

- A. Rational employment
- B. Renunciation of alcohol
- C. Sanitation of chronic infection focuses
- D. Renunciation of smoking
- E. Moving to a different climate zone

4. The man, 26 years old, acutely fell ill 2 days ago, when headache, weakness, cough with rusty sputum appeared. At the inspection: hyperemia of face, body temperature 38°C, RR 36 per minute; dullness on percussion on the right and below the angle of scapula, bronchial breathing; AP 100/70, HR 98 per minute. In blood: L 17/10/9/1, blood sedimentation 32 mm/hr. At the roentgenological research: homogeneous shadow in the right lower lung. What is the most credible diagnosis?

- A. Pulmonary tuberculosis
- B. Bronchiectasis
- C. Acute bronchitis
- D. Exudative pleurisy
- E. Pneumonia

5. The patient N., 32 years old, complains on increase of body temperature to 39°C, breathlessness, unproductive cough. Fell ill two days ago. At the inspection: dullness on percussion, smallbubly rales on the left. RR 26 per minute. What research of lungs should be on the first place?

- A. Spirography
- B. Bronchography
- C. Bronchoscopy
- D. Radiography of the chest
- E. Pneumometry

6. The patient R., 40 years old, complains on fever up to 39,5°C, cough with rusty sputum, breathlessness, herpetic rash on the lips. RR 32 per minute. At the lung examination: enhancement of voice trembling, dullness on

percussion on the right under the scapula, on the background of bronchial breathing-crepitation. Blood tests: L 14/10/9/l, blood sedimentation 35 mm/hr. Your previous diagnosis?

- A. Exudative pleurisy
- B. Bronchiectasis
- C. Pulmonary tuberculosis
- D. Acute bronchitis
- E. Pneumonia

7. The man, 38 years old, complains on cough attacks with a small amount of rusty sputum, pain in the right side, associated with a deep breath and cough. Fell ill acutely after hypothermia. At the inspection: body temperature 39,2°C, RR 22 per minute, pulse 114 per min., AP 110/70; moisture skin, hyperemia of cheeks. At the auscultation of the lower lungs on the right: moist, sonorous smallbubly rales. What infectious agent caused the disease?

- A. Staphylococcus
- B. Pneumococcus
- C. Klebsiella
- D. Mycoplasma
- E. Enterococcus

8. The man, 60 years old, complains on shortness of breath with hard expiration, which increases at physical exertion, cough with a small amount of mucopurulent sputum mostly in the morning. In the anamnesis: COPD. At the inspection: body temperature 36,0°C, RR 22 per minute, pulse 84 per minute, AP 110/70. Moisture skin, diffuse cyanosis. At the auscultation: harsh breathing, scattered whistling rales. Volume of the forced expiration for 1 sec. is 62% of the proper value; pharmacological test with atrovent-increase of 5%. What mechanism of bronchial obstruction development is the most credible?

- A. Hypercrinia
- B. Inflammatory edema
- C. Bronchospasm

- D. Diffuse-sclerotic changes
- E. Mucostasis

9. At the man, 35 years old, while lifting weights sharp pain in the left half of thorax, shortness of breath, dizziness appeared. At the examination of lungs: tympanic sound on the left, no breathing on auscultation. What is the most credible diagnosis?

- A. Spontaneous pneumothorax
- B. Pulmonary embolism
- C. Myocardial infarction
- D. Sinistral sternalis radiculitis
- E. Myositis

10. At the patient on the 4-th day after operation on the right ovary cyst, pain in the right half of thorax, shortness of breath, fever up to 37,7°C suddenly appeared. At the examination of lungs: RR 32 per minute, reduce of respiratory noises on the right. What is the most credible complication?

- A. Lung abscess
- B. Pneumonia
- C. Thromboembolism of pulmonary artery
- D. Exudative pleurisy
- E. Pneumothorax

11. The patient, 43 years old, complains on cough with a small amount of sputum, pain in the right half of the thorax at breathing, shortness of breath, fever to 39°C. Fell ill acutely. At the inspection: herpetic rash on the lips. In the projection of the lower part of the right lung there are dullness on percussion, enhancement of voice trembling, bronchial breathing. At the roentgenological research: homogeneous shadow in the right lower lung with clear contours. What is the most credible etiology of pneumonia?

- A. Staphylococcus
- B. Pneumococcus
- C. Mycoplasma

D. Legionella

E. Klebsiella

12. The man, 46 years old, was suffering on bronchial asthma during the last 10 years. During the work on the cottage area felt choking; cough, remote rales appeared. What pharmaceutical group drug is better to apply for removal of such asthma attacks?

A. Methylxanthines

B. B2-adrenergic blockers

C. Blockers of membranostabilising cells

D. B2-adrenergic stimulants

E. Oral glucocorticoids

13. After clinical, roentgenological and laboratory research of the patient M., 35 years old, the previous diagnosis was determined: pneumonia of mycoplasmic etiology, moderate severity, respiratory failure of I degree. What pharmaceutical group drug is it more reasonable to start treatment of this patient?

A. Aminoglycoside

B. Cephalosporin

C. Beta-lactam antibiotics

D. Phtorchinolones

E. Macrolides

14. At the patient sharp pain in the right half of the thorax suddenly appeared. Rapidly shortness of breath intensified. At the inspection: general state was severe; expressed acrocyanosis; subcutaneous emphysema in the neck and upper chest area was determined. At the lung examination: boxing sound, no breathing over the right lung. HR 85-110 per minute, AP 100/60. What complication developed at the patient?

A. Exudative pleurisy

B. Myocardial infarction

C. Lung infarction

D. Pneumonia

E. Spontaneous pneumothorax

15. The student, 17 years old, often suffered on respiratory diseases in childhood. In the period between acute respiratory diseases cough with mucopurulent sputum to 50 ml per day remained, once noticed a mixture of blood in sputum. After examination at a TB observation was recommended. At the examination: over the lungs, especially on the right,-moist rales of different caliber. The radiography of the chest cavity: cords of roots and cellular picture over the right lower area. Your diagnosis?

A. Chronic lung abscess

B. Chronic bronchitis

C. Bronchiectasis

D. Metatuberculous pneumosclerosis

E. Metapneumonic pneumosclerosis

16. The man, 38 years old, fell ill two weeks ago, when cough, weakness, fever up to 38,0°C appeared. Condition sharply deteriorated in a week, when chill, pouring perspiration added, in the evening temperature increased to 39,0°C. In 2 days before hospitalization a big amount of stinking sputum with blood was eliminated with cough, after that the patient's condition improved. Pulse 80 per minute, RR 20 per minute, body temperature 37,6°C. What changes are possible at the radiography of the chest cavity?

A. Displacement of mediastinum to the homogeneous shadow side

B. Homogeneous circular shadow in the pulmonary area

C. Presence of a cavity with horizontal liquid level

D. Shadow in the lower section with oblique upper limit

E. Shadow of part of the lung

17. The patient, 36 years old, complains on breathlessness, sense of compression in the right half of the chest, increase of body temperature to 38,7°C, cough with a small amount of mucopurulent sputum. Sick over a week. Appearance of complaints is connected with supercooling. At the inspection: easy acrocyanosis of the lips, rhythmic pulse 90 per minute, AP 140/85. The

right half of the thorax is behind the act of breathing. At the lung examination: dullness on percussion below the angle of scapula; no breathing. What is the most credible diagnosis?

- A. Bronchiectasis
- B. Pleuropneumonia of the right lower lung
- C. Right lung atelectasis
- D. Exudative pleurisy
- E. Right lung abscess

18. At the patient, 52 years old, severe attack of expiratory breathlessness, accompanied with severe dry cough with remote rales, palpitation developed. What is the urgent care drug?

- A. Salbutamol
- B. Strofantyn
- C. Lasolvan
- D. Atrovent
- E. Prednisolone

19. The patient, 20 years old, complains on dry cough, pain in muscles, increase of body temperature to 38°C during 5 days. Within 2 weeks: pain in throat, runny nose. Took ampicillin 2.0 g per day without effect. At the examination: harsh breathing; blood leukocytes  $7,0 \times 10^9/l$ , leukocytar formula without changes, blood sedimentation 25 mm/hr. At the radiography: enhancement of pulmonary picture, little intensive shadow focuses in the lower right lung. What is the most credible pathology?

- A. Acute bronchitis
- B. Influenza
- C. Mycoplasmic pneumonia
- D. Postinfluenzal pneumonia
- E. Pneumococcal pneumonia

20. The patient, 25 years old, addressed a district doctor with complaints on runny nose and watery nasal discharges, sneezing, difficulties at breathing,

itch of eyes. These symptoms appear for 3 years with start of the summer season and disappear at the fall beginning. At the inspection: eyes with signs of inflammation, hyperemia of skin around them, dry lips, nasal voice. At the examination of an otolaryngologist edema and infiltration of the nasal mucosa, edema of the back nasal conchae and auditory tubes are determined. What is the most credible diagnosis?

- A. Bronchial asthma
- B. Idiopathic rhinitis
- C. Chronic rhinitis
- D. Pollinosis, rhinoconjunctival syndrome
- E. Laryngitis

21. At the patient on the background of fever dry cough, intensifying shortness of breath appeared. Most of the time he lied on one side. After the auscultation and percussion diagnosis of exudative pleurisy was suggested. What research can confirm the diagnosis?

- A. Tomography
- B. Spirometry
- C. Bronchography
- D. Bronchoscopy
- E. Radiography of the chest cavity

22. At the patient, 47 years old, who was observing in connection with bronchial asthma for a long time, attacks became more frequent and were not stopped with salbutamol inhalation. What drug must be appointed as the starting intensive treatment?

- A. Oxygen
- B. Bronchodilators
- C. Glucocorticoid inhalation
- D. Infusion therapy
- E. Cardiac glycosides

23. The man, 27 years old, complains on cough with rusty sputum, pain in

the chest at breathing, increase of body temperature to 39°C. Fell ill acutely after hypothermia. At the inspection: RR 30 per minute, heart rate 92 per minute, AP 130/80. At the lung examination: on the right side from the 4<sup>th</sup> rib and down on paravertebralis, scapularis and axillaris posterior lines there are enhancement of voice trembling, dullness on percussion and bronhial breathing. What is the primary treatment?

- A. Protected aminopenicillin
- B. Pleural puncture
- C. Gentamicin
- D. Aminocapronic acid
- E. Biseptol

24. The woman, 62 years old, is suffering on bronchial asthma. Recently attacks of stenocardia, dysrhythmia appear. At the inspection: body temperature 36,6°C, pulse 78 per minute, extrasystoles, AP 160/95, RR 18 per minute. At the auscultation of lungs: harsh breathing with extended expiration, scattered dry rales. What drug is contraindicated in this situation?

- A. Korynfar
- B. Obzydan
- C. Nitrosorbid
- D. Sustak
- E. Rytmilen

25. The man complains on cough with sputum, which appeared several years ago, general weakness. He is living near asbestos processing plant. At the inspection: there is an enlarged lymphatic node above the right clavícula. At the lung examination: reducing breathing with extended expiration, dry rales on the right. At the roentgenological research: there is a heterogeneous shadow with indistinct outlines on the right in the root and basal zone, increased airance of lungs. Medical comment of an otolaryngologist: paresis of the right vocal cord. Your diagnosis?

- A. Central right lung cancer
- B. Right lung pneumonia

- C. Chronic dust bronchitis
- D. Asbestosis
- E. Pulmonary tuberculosis

26. The man, 37 years old, complains on acute pain in the left half of the chest, shortness of breath that increases with any movement. Fell ill suddenly after physical overload. At the inspection: moderate cyanosis of the face, the left half of the chest is behind the act of breathing, tympanic sound on the left, no breathing. RR 24 per minute. Reduced heart tones. HR 90 min. At the radiography: visible line of visceral pleura, outside of it pulmonary picture is absent. What is the most credible diagnosis?

- A. Left lung pneumonia
- B. Pulmonary embolism
- C. Myocardial infarction
- D. Spontaneous pneumothorax
- E. Sinistral exudative pleurisy

27. The man, 64 years old, foundry worker in the past, was delivered to the hospital with complaints on sharp pain in the right chest, breathlessness, dry cough. In the anamnesis: COPD for a long time. At the inspection: cyanosis, swelling of neck veins; RR 22 per minute; tympanic sound on the right, no breathing, dry scattered rales; reduced heart tones, accent of II tone on pulmonary artery, heart rate 110 per minute; the lower liver edge is 3,0 sm below the rib arc. What is the diagnosis?

- A. Neuralgia of intercostal nerves
- B. Dry pleurisy
- C. Flare of bronchitis
- D. Right lung pneumonia
- E. Spontaneous pneumothorax

28. The man, 54 years old, complains on chest pain, increase of dyspnea, cough, hemoptysis. In the anamnesis: a long-lasting cough with purulent sputum to 200 ml per day, more in the morning, periodic increase of body temperature to 37,8°C, perspiration, chill. Smoking since the 14 years old age.

At the inspection: decrease of body weight, earthy shade of skin, edema of the face, fingers as "drum sticks". At the lung examination: "mosaic character" of sound on percussion, scattered dry and moist midbubbly rales in the lower areas. In blood: leukocytosis, moderate increase of blood sedimentation. What is the reason of pulmonary hemorrhage?

- A. Tuberculosis
- B. Bronchiectasis
- C. Chronic bronchitis
- D. Lung abscess
- E. Lung cancer

29. The man, 45 years old, entered the hospital with complaints on pain in the left half of the chest and epigastric area that suddenly appeared, breathlessness, nausea, single vomiting. Fell ill acutely after lifting a heavy weight. At the inspection: shallow breathing, RR 38 min, the left half of the chest is behind the act of breathing, tympanic sound on percussion, breathing is not examined; pulse of weak content 110 per minute, AP 100/60, slight dextrocardia, deafness of heart tones. What research must be conducted first?

- A. Bronchoscopy
- B. Echocardiography
- C. Radiography of the chest cavity
- D. Esophagogastroscopy
- E. Ultrasound research of abdominal cavity

30. The woman, 58 years old, entered the hospital with complaints on shortness of breath and palpitation. At the inspection: severe condition, no edema, excited, noisy breathing with participation of ancillary muscles, periodical cramps, diffuse cyanosis. At the lung examination: scattered dry rales, in the lower areas breathing is sharply reduced. Pulse 100 per minute, arrhythmic, 3 extrasystoles in a minute, AP 140/100, liver is at the edge of rib arc, PaO<sub>2</sub> 45, pH 7,3. What is the leading syndrome?

- A. Respiratory failure
- B. Hypertension

- C. Convulsive
- D. Arrhythmic
- E. Heart failure

31. At the woman, 68 years old, pain in the left half of the chest, shortness of breath suddenly appeared a week ago. At the inspection: cyanosis, swelling of neck veins, pulse 100 per minute, AP 110/70, RR 28 per minute. At the lung examination: dullness on percussion on the left below the scapula, sonorous smallbubly moist rales. Heart bounds are displaced to the right, accent of II tone on pulmonary artery. Liver +4.0 sm, edema of the left leg, sharply painful during palpation. At the ECG: high and sharp P in II, III, aVF, deep S in I, Q in III, negative T in III leads. What is the most credible diagnosis?

- A. Pneumonia
- B. Pulmonary embolism
- C. Pericarditis
- D. Myocardial infarction
- E. Pleurisy

32. At the woman, 35 years old, in 30 minutes after intramuscular injection of ampicillin acute weakness, itch of the face and hands, nausea, cough, shortness of breath, pain in the thorax appeared. At the inspection: cyanosis, edema of eyelids, face, neck, moisture skin with red rash; shallow breathing, tachypnea with a big amount of moist rales of different calibre, pulse 120 per minute, AP 70/20, deafness of heart tones. What therapy must be immediately started?

- A. Prednisolone
- B. Adrenaline
- C. Astmopent
- D. Euphyllin
- E. Dopamine

33. The woman, 40 years old, entered the clinic with complaints on asthma, which lasted several hours and did not pass under the influence of earlier effective salbutamol. Palpitation and anxiety appeared. In the anamnesis:

bronchial asthma for 8 years. At the inspection: severe condition, the patient is sitting, leaning with hands on the table edge, pale cyanosis, whistling breathing is heard on the distance. At the lung examination: on the background of reduced breathing there is a small amount of dry rales. Pulse 108 per minute. AP 140/80. What drugs it follows to appoint first?

- A. Membrane stabilizers
- B. Adrenomimetics
- C. Antihistaminic
- D. Holinolytics
- E. Glucocorticoids

34. The man, 46 years old, complains on sudden pain in the upper abdomen, nausea, single vomit, weakness. At the inspection: condition of moderate severity, body temperature 38°C, shallow breathing, RR 28 per minute. There is dullness on percussion below the angle of scapula on the right, crepitation. Pulse 92 per minute. AP 120/70. Muffled heart tones. Abdomen is swollen, moderately tense in the epigastric area and right subcostal area. What is the cause of acute abdominal pain?

- A. Pleuropneumonia of the right lower lung
- B. Acute cholecystitis
- C. Acute pancreatitis
- D. Myocardial infarction
- E. Acute gastritis

35. The patient, 17 years old, complains on cough with purulent sputum to 0,3 liters per day, pain in the lower left half of the chest area, periodical increase of body temperature. What test will be the most informative to confirm the diagnosis?

- A. Radiography of lungs
- B. Bronchoscopy
- C. Bronchography
- D. Pleural puncture
- E. Research of sputum

36. The patient, 50 years old, entered the hospital on the nine day after the disease beginning with complaints on fever up to 38,5°C, acute weakness, pain in the area of the right scapula at breathing, dry cough. RR 28 per minute. Pulse 100 per minute, signs of intoxication. At the lung examination: dullness on percussion in the area of the right scapula, bronchial breathing and solitary smallbubbly rales. In three days there was an attack of cough with elimination of 200 ml of purulent sputum, after which body temperature fell. At the level of the scapula angle on the background of lung infiltration round clearing with horizontal fluid level was determined. Your diagnosis:

- A. Lung cyst
- B. Acute lung abscess
- C. Lung cancer with dissociation
- D. Bronchoectasis
- E. Restricted empyema of pleural cavity

37. The man, 32 years old, during exercise suddenly felt weakness, pain in the right half of the chest with radiation to the right shoulder, shortness of breath, palpitation. Condition is severe. Tachycardia to 100 per minute, AP 90/60. RR 28 per minute; the right half of the chest is behind the act of breathing. There is a tympanic sound on the right on percussion, breathing noises are not examined. Body temperature is normal. Diagnosis?

- A. Lung infarction
- B. Myocardial infarction
- C. Spontaneous pneumothorax
- D. Pneumonia
- E. Dry pleurisy

38. At the patient, 46 years old, pneumonia with multiple cavities of dissociation in both lungs was found. Treatment with penicillin was ineffective. Staphylococcus aureus was determined in the bronchopulmonary content that has resistance to methicillin. What antibacterial preparation must be chosen in this situation?

- A. Tetracycline
- B. Carbenicillin
- C. Ampicillin
- D. Vancomycin
- E. Biseptol

39. At the patient, 27 years old, who abused of alcohol, pneumonia of the right lower lung was diagnosed. At the radiography: infiltrative changes on the right in S6. Earlier bronchopulmonary diseases were not observed. What antibacterial therapy it follows to appoint first?

- A. Biseptol
- B. Gentamicin
- C. Amoxiclav
- D. Tetracycline
- E. Cefporin

40. The patient is complaining on cough with elimination of a small amount of sputum in the morning, dyspnea over 8 years. Smokes for more than 10 years. At the inspection: cyanosis and increase of expiration duration, dry scattered rales. Diagnosis:

- A. Bronchial asthma
- B. COPD
- C. Idiopathic fibrosing alveolitis
- D. Bronchiectasis
- E. Chronic not obstructive bronchitis

41. The patient, 41 years old, complains on constant cough with a small amount of mucous sputum. In the anamnesis: morning cough over 5 years, 2-3 times a year it increases after supercooling; smokes, drinks alcohol. At the lung examination: voice trembling is reduced, boxing sound on percussion, single dry rales. At the radiography: increase of lung roots, enhancement of pulmonary picture. What is the most credible diagnosis?

- A. Pneumonia

- B. Bronchiectasis
- C. Pulmonary emphysema
- D. Idiopathic fibrosing alveolitis
- E. COPD

42. At the patient pneumonia was diagnosed. Despite treatment, hectic fever and elimination of sputum with "open mouth" appeared. What disease should be suspected?

- A. Lung abscess
- B. Bronchiectasis
- C. Chronic bronchitis
- D. Pulmonary tuberculosis
- E. Staphylococcal pneumonia

43. The patient is suffering on COPD for 20 years. Lately there was elimination of approximately 300 ml of purulent sputum per day with a maximum in the morning. At the inspection: fingers as "drum sticks", nails as "watch glass". What is the diagnosis?

- A. Pneumonia
- B. Bronchiectasis
- C. Chronic bronchitis
- D. Pulmonary gangrene
- E. Tuberculosis

44. The patient complains on cough with elimination of purulent sputum to 400 ml per day of chocolate color with putrid smell. Fell ill acutely with fever up to 39°C. At the radiography: area of shadow with cavity in the center, with erroneous contours and fluid level. What disease should be suspected?

- A. Cavernous tuberculosis
- B. Lung abscess
- C. Pulmonary gangrene
- D. Bronchiectasis
- E. Lung cancer with dissociation

45. The patient, 19 years old, who suffered on pneumonia for two times, complicated with pleurisy, addressed a doctor. During the high jump on sports-ground felt sharp pain in the left side, strong breathlessness. At the inspection: pale, acrocyanosis, the left half of the chest is behind the act of breathing, tympanic sound on percussion, no breathing. Pulse 98 per minute, AP 90/50. What is the diagnosis?

- A. Pleural exudate
- B. Heart failure
- C. Vascular failure
- D. Spontaneous pneumothorax
- E. Bronchial obstruction

46. At the patient, 53 years old, dextral hydrothorax was diagnosed. At the palpation of the right side a doctor determined absence of voice trembling lower the angle of scapula. What possible fluid volume is in the pleural cavity?

- A. 300 ml
- B. 500 ml
- C. 1000 ml
- D. 2000 ml
- E. 3000 ml

47. On lung percussion of the patient, who received a significant barotrauma, the lower bound of the lungs is on one rib below the norm, the height of the tops of both lungs and Krenigs` fields are considerably increased. About what disease it follows to think?

- A. Pericardial pleurisy
- B. Pulmonary emphysema
- C. Chronic bronchitis
- D. Bronchial asthma
- E. Pneumothorax

48. The patient, 68 years old, complains on dry cough, increase of body temperature to 37,5°C, pain in the chest at breathing. In the anamnesis: chest trauma 5 days ago. At the inspection: pallor of skin, the right half of the chest is behind the act of breathing, reduced breathing and pleural friction noise on the lower right lung. In blood: leukocytosis, increased blood sedimentation. At the radiography: enhancement of pulmonary picture. Your clinical diagnosis?

- A. Dry pleurisy
- B. Pneumonia
- C. Exudative pleurisy
- D. Traumatic pneumothorax
- E. Lung cancer

49. The patient, 53 years old, complains on cough with mucous sputum, fever up to 38,5°C, weakness, shortness of breath, sweating. RR 24 per minute, moisture skin. Dullness on percussion below the left scapula, reduced breathing, smallbubbly moist rales. Blood tests: L 10/10/9/1, blood sedimentation 27 mm/hr. Your previous diagnosis?

- A. Bronchiectasis
- B. Pneumonia of the left lower lung
- C. Sinistral exudative pleurisy
- D. Lung cancer in the left lower lobe
- E. Lung abscess

50. The patient, 40 years old, complains on fever to 39°C, cough with sputum with admixtures of blood, shortness of breath, general weakness, herpetic rash on the lips. RR 32 per minute. At the lung examination: enhancement of voice trembling, dullness on percussion, bronchial breathing on the right under the scapula. Blood tests: L 14/10/9/1, blood sedimentation 35 mm/hr. Your previous diagnosis?

- A. Lung cancer
- B. Bronchiectasis
- C. Right lung cavernous tuberculosis

- D. Right lung pneumonia
- E. Exudative pleurisy

51. The patient, 23 years old, took 1,0 g of aspirin in connection with acute respiratory infection. After that attack of asthma with hard expiration developed, which passed after introduction of euphyllin. The allergological anamnesis was not overburdened. In the past there were two operations on nasal polyposis. Your diagnosis:

- A. Dyskinesia of trachea
- B. Atopic bronchial asthma
- C. Occupational bronchial asthma
- D. Asthma of physical effort
- E. Aspirin asthma

52. At the 20-year-old man, who suffers on asthma, there are attacks 3-4 times a day. Night attacks-two times a week. Volume of the forced expiration for 1 sec. is 70% of the proper value, its variability during the day is 20%. Specify the severity course of asthma?

- A. Asthmatic status
- B. Easy severity
- C. Severe course
- D. Moderate severity
- E. Recurrent course

53. The patient, 27 years old, complains on dry cough and pain, associated with breathing, in the right half of the chest, fever to 39,5°C. At the lung examination: dullness on percussion and bronchial breathing on the right from the scapula angle. What is the most credible diagnosis?

- A. Abscess of the lower right lung
- B. Pneumonia of the lower right lung
- C. Bronchiectasis
- D. Atelectasis of the lower right lung
- E. Exudative pleurisy

54. The patient, 22 years old, in 3 days after acute respiratory infection started to complain on rales beyond the breast, cough with mucous sputum. At the inspection: pulmonary sound, harsh breathing. At the radiography: without changes. What is the diagnosis?

- A. Acute tracheitis
- B. Influenza
- C. Acute laryngitis
- D. Acute bronchitis
- E. Chronic bronchitis

55. The man, 60 years old, complains on shortness of breath, which increases with exercise. In the anamnesis: smokes for 30 years. At the inspection: body temperature 36,5°C, RR 22 per minute, pulse 88 per minute, AP 130/85. Barrel- shaped thorax, pulmonary sound with boxing tinge over all lung fields, reduced vesicular breathing. What disease in the anamnesis more likely led to pathological changes?

- A. COPD
- B. Bronchiectasis
- C. Tuberculosis
- D. Pneumonia
- E. Chronic not obstructive bronchitis

56. The man, 43 years old, complains on shortness of breath during physical exertion. At the inspection: body temperature 36,4°C, RR 20 per minute, pulse 78 per minute, AP 125/80. Barrel-shaped thorax. At the lung examination: reduced vesicular breathing. What research must be conducted for determination of the appointed broncholytics effectiveness?

- A. Spirography
- B. ECG-control of the right heart overload
- C. Picfloumetry
- D. Bronchoscopy
- E. Analysis of sputum (amount and flora)

57. The man, 50 years old, a miner, complains on expiratory breathlessness, which increases during physical exercise, cough (usually in the morning) with a small amount of purulent sputum. He is ill about 6 years. In the anamnesis: smokes for 30 years. At the inspection: body temperature 36,7°C, RR 22 per minute, pulse 84 per minute, AP 140/85. Hypersthenic constitution. Cyanosis of the lips. At the lung examination: multiple dry rales. What is the most credible mechanism of respiratory failure?

- A. Inflammatory processes in lungs
- B. Limitation of chest mobility
- C. Reduction of pulmonary respiratory surface
- D. Diffuse-sclerotic changes in airway lumen
- E. Pulmonary fibrosis

58. The woman, 36 years old, is staying at home during the week in connection with acute respiratory infection. During another visit to a doctor she complains on cough with a small amount of mucopurulent sputum, weakness. At the inspection: body temperature 37,2°C; RR 18 per minute, heart rate 80 per minute, AP 110/70. In lungs: vesicular breathing with harsh shade, single dry rales. Muffled, rhythmic heart tones. What is the tactics?

- A. To continue a certificate of work incapacity
- B. To close a certificate of work incapacity and discharge to work
- C. Consultation of a pulmonologist
- D. Hospitalization to the pulmonological unit
- E. To appoint antibacterial therapy

59. The man, 32 years old, called a district doctor in connection with expressed weakness, increase of body temperature and complaints on cough with a small amount of puromucous sputum. In the anamnesis: acute respiratory infection two weeks ago, took aspirin. At the inspection: body temperature 37,8°C; RR 20 per minute, HR 90 per minute, AP 110/70. At the lung examination: dullness on percussion reduced vesicular breathing, smallbubbly rales on the right below the scapula angle. Heart tones are

rhythmic, muffled, moderate tachycardia. What is the additional test to confirm the diagnosis?

- A. General analysis of blood
- B. Spirography
- C. Radiography of thorax
- D. General analysis of urine
- E. General analysis of sputum

60. The man, 56 years old, an alcoholic, suddenly fell ill: body temperature increased to 40°C, weakness, cough with dark sputum appeared. At the inspection: severe condition; body temperature 39,5°C, RR 30 per minute, HR 100 per minute, AP 110/70. In lungs: moist rales on the right. Heart tones are muffled, rhythmic, tachycardia. At the radiography: shadow of the right upper lobe. What complication may develop at the patient?

- A. Endocarditis
- B. Bronchiectasis
- C. Pericarditis
- D. Lung abscess
- E. Pneumorrhagia

61. The woman, 45 years old, complains on cough with purulent sputum, expressed weakness, fever, accompanied with chills, dizziness. At the inspection: body temperature 38°C, RR 22 per minute, HR 90 per minute, AP 110/70. At the lung examination: enhancement of voice trembling, dullness on percussion, reduced vesicular breathing, a small amount of sonorous smallbubbly rales on the right below the scapula angle. Heart tones are muffled, rhythmic, moderate tachycardia. A doctor suggested the diagnosis of pneumonia. What syndrome can confirm the diagnosis?

- A. Compaction of pulmonary tissue
- B. Intoxication
- C. Inflammation
- D. Violation of bronchial passage
- E. Respiratory failure

62. The man, 60 years old, is keeping a bed in the therapeutic unit with the pneumonia of the right lower lobe. His condition has improved under the influence of therapy. When the antibiotic therapy can be abolished?

- A. After disappearance of intoxication symptoms
- B. The day after normalization of body temperature
- C. After disappearance of expressed leukocytosis (normalization of blood test)
- D. After complete resorption of infiltration (at the radiography)
- E. On the 5 day after normalization of body temperature

63. The woman, 34 years old, is suffering on bronchial asthma for 15 years. Recently asthma attacks are emerged 4-5 times a week, at night 2-3 times a month. She takes salbutamol to stop attacks. At the inspection: RR 20 per minute, HR 76 per minute, AP 120/80. In lungs: vesicular breathing. Heart tones are muffled, rhythmic. What drug should be appointed at this case?

- A. Corticosteroid injections
- B. To apply salbutamol regularly
- C. Corticosteroid inhalation
- D. Corticosteroid tablets
- E. Cromoglicate

64. The woman, 23 years old, is observing in connection with bronchial asthma. Recently asthma attacks occur 4-5 times a week, night attacks 2-3 times a month. She applies salbutamol for stopping them. Allergic test with antigen of domestic mite is positive. At the inspection: RR 20 per minute, HR 76 per minute, AP 120/80. Vesicular breathing in lungs. Heart tones are muffled, rhythm is correct. What is the leading mechanism in development of bronchial obstruction?

- A. Tracheobronchial dyskinesia
- B. Violation of arachidonic acid metabolism
- C. Adrenergic imbalance
- D. High tone of parasympathetic nervous system
- E. Bronchial hyperreactivity

65. The man, 60 years old, complains on breathlessness with hard expiration, dry cough. In the anamnesis: COPD for 30 years; often takes berotek; smokes to 1,5 packs of cigarettes a day. During the last month he is treated on stenocardia, takes fenigidin, nitroglycerine, anaprylin. At the inspection: body temperature 36,4°C, RR 28 per minute, HR 98 per minute, AP 120/80. In lungs: vesicular breathing, scattered dry whistling rales, mainly during expiration. Heart tones are muffled, rhythm is correct. What is the reason of aggravation?

- A. Appointment of fenigidin
- B. Smoking tobacco
- C. Apply of anaprylin
- D. Abuse of berotek
- E. Flare of COPD

66. The man, 45 years old, complains on breathlessness, acute weakness, severe headache, dry cough, pain in the right thorax, which increases with deep breathing. Fell ill near a day ago after supercooling. At the inspection: body temperature 39°C, RR 26 per minute, heart rate 112 per minute, AP 100/60. At the lung examination: reduced breathing, crepitation, pleural friction noise on the right lower lung. At the radiography: infiltrational shadow of the right lung lower lobe. What agent led to the disease?

- A. Pneumococcus
- B. Streptococcus
- C. Staphylococcus
- D. Mycoplasma
- E. Legionella

67. The man, 32 years old, complains on dyspnea and chest pain on the right, which increases with deep breathing. Fell ill one day ago after fishing. At the inspection: body temperature 39,2°C, RR 24 per minute, pulse 112 per minute, AP 105/70; acrocyanosis. At the lung examination: crepitation on the background of reduced vesicular breathing on the right lower lung. What is the leading mechanism of ventilation violation?

- A. Violation of chest mobility
- B. Restrictive failure of external breathing
- C. Violation of the pleural cavity integrity
- D. Obstructive failure of external breathing
- E. Dysfunction of respiratory center

68. The patient, 28 years old, complains on severe piercing pain in the left half of the chest, associated with breathing, dry cough, subfebrile temperature. Fell ill three days ago after supercooling. At the inspection: position on the right side, the left half of the chest is behind the act of breathing. At the lung examination: clear pulmonary sound, reduced vesicular breathing on the left, dry rales at in- and expiration, which increase with pressing of stethoscope and remain at imitation of breathing. At the radiography: lung fields are intact, left sinus does not open completely. Select the most correct diagnosis:

- A. Dry pleurisy
- B. Pneumonia
- C. Acute bronchitis
- D. Spontaneous pneumothorax
- E. Exudative pleurisy

69. During the epidemic of influenza at the patient M., 59 years old, after fever reduction, chest pain, cough with yellow-green sputum (100 ml per day), sometimes with blood admixtures appeared. At the inspection: RR 36 per minute. In lungs: dullness on percussion, harsh breathing, mid and bigbubbly rales on the right under the scapula. Blood tests: L 18,6/10/9/1, blood sedimentation 64 mm per hour. The analysis of sputum: L 80-100, Er 40-50 in eyeshot, elastic fibers, cocci. At the radiography: roots are expanded, heterogeneous shadow of the right lower lobe with two areas of clearing. What is the previous diagnosis?

- A. Peripheral cancer of the right lung lower lobe
- B. Infiltrative tuberculosis of lungs in the dissociation phase
- C. Exudative pleurisy

- D. Pneumonia of the right lung lower lobe with abscess
- E. Infarct-pneumonia

70. The woman, 36 years old, complains on attacks of dry cough, asthma. Fell ill after acute respiratory infection 2 years ago. At the inspection: RR 16 per minute, pulse 68 per minute, AP 130/90. At the lung examination: clear pulmonary sound, multiple dry rales. What test must be conducted to determine the reversibility of bronchial obstruction:

- A. Forced expiration
- B. Obzydan
- C. Exercise
- D. Oxygen
- E. Salbutamol

71. At the man, 40 years old, fever to 39°C, chill, headache, pain in the side, which increases in a deep breath, dyspnea, cough suddenly appear. Pulse 120 per minute. Blood sedimentation 30 mm per hour. At the radiography during the first days of the disease: shadow without clear contours in the lower areas of lungs (right and left), enhancement of pulmonary picture, roots are expanded. After 10 days of antibacterial and antiinflammatory therapy positive dynamics is determined at the radiography. Your diagnosis:

- A. Bronchial asthma
- B. Pneumonia
- C. Acute bronchitis
- D. Exudative pleurisy
- E. Bronchiectasis

72. The man, 32 years old, complains on asthma attack that is lasting for 48 hours, cough with hard elimination of sputum. In the anamnesis: bronchial asthma for five years, treatment without control-inhalers of short action (salbutamol). At the inspection: severe condition, constraint position; diffuse cyanosis, pulse 110 per minute, AP 110/70; heart tones are reduced, accent of II tone on pulmonary artery. In lungs: boxing sound, a big amount of dry whistling rales. In blood: eosinophilia 18%. What is the drug of choice in this

case?

- A. B2 adrenomimetics
- B. Theophylline
- C. Corticosteroids
- D. Holinolytics
- E. Antihistamine

73. The man, 26 years old, often suffered on bronchitis in childhood. There are complaints on frequent cough with mucopurulent sputum to 200 ml, mainly in the morning, periodical increase of body temperature to 38°C. At the lung examination: dry, and in lower areas-moist rales. At the radiography: deformation of pulmonary picture. Your diagnosis?

- A. COPD
- B. Bronchiectasis
- C. Bronchial asthma
- D. Tuberculosis
- E. Pneumosclerosis

74. At the patient, 28 years old, increase of body temperature to 38°C, cough with purulent sputum, expressed weakness, shortness of breath, pain in the chest during respiration appeared. At the lung examination: dullness on percussion in the lower left lung, smallbubbly moist rales. What diagnostic test is the most important in diagnostics?

- A. Analysis of flora sputum
- B. Spirography
- C. Pneumotahometry
- D. Bronchography
- E. Radiography of the chest cavity

75. At the patient, 40 years old, during the X-ray examination shadow focuses of lung tissue of several segments of the right lung lower lobe were found. What data on percussion and auscultation may occur over the damaged areas?

- A. Dullness on percussion; moist rales
- B. Boxing sound on percussion; vesicular breathing
- C. No changes on percussion; dry rales
- D. Tympanic sound on percussion; amphoric breathing
- E. No changes on percussion; vesicular breathing

76. The patient complains on asthma attacks that occur 1-2 times a week and night attacks 2 times a month and more. Volume of the forced expiration for 1 sec. is 80% of the proper value. What is the diagnosis?

- A. Severe persistent bronchial asthma
- B. Intermittent asthma
- C. Persistent bronchial asthma of moderate severity
- D. Easy persistent bronchial asthma
- E. COPD

77. The patient, 47 years old, complains on cough, shortness of breath during physical exertion, pain in the cardiac area, general weakness. In the anamnesis: COPD for 10 years. On auscultation of lungs: dry scattered, whistling rales. Systolic pressure in pulmonary artery is 50. What treatment it follows to appoint:

- A. Bromhexine
- B. Aerofylline
- C. Coffeine
- D. Nitroglycerin
- E. Atropin

78. The tourist had rest in Cyprus, stayed in a hotel with a central air conditioner. In 2 weeks, without apparent reason, strong headache, pain in muscles, joints, dry cough, moderate dyspnea, pain in the chest suddenly appeared. At the radiography: infiltration of lung tissue in the right lower and middle lobes. In blood: absolute lymphopenia on the background of moderate leukocytosis. The most credible causative agent is:

- A. Mycoplasma

- B. Pneumocyste
- C. Legionella
- D. Enterovirus
- E. Pneumococcus

79. The asthma patient complains on daily attacks. During the last years there were no prolonged attacks. She is forced to daily use of beta-2-agonists. There are night attacks once a week. The peak rate of expiration is 60-80% of the proper value. What step of therapy will you choose according to GINA recommendations of 2007 year?

- A. 1
- B. 2
- C. 3
- D. 4
- E. 5

80. The patient, 52 years old, is hospitalized with complaints on shortness of breath at moderate exercise, cough with hard separated sputum. In the anamnesis: bronchial asthma for 12 years. At the inspection: RR 26 per minute; in lungs: pulmonary sound with boxing shade, reduced vesicular breathing with extended expiration, scattered dry rales. Previously treated only with teopek or euphyllin intravenously. Assign the basic treatment:

- A. Budekort
- B. Salbutamol
- C. Seretid
- D. Formoterol
- E. Prednisolone

81. The man, 60 years old, is suffering on coronary heart disease and COPD. During the last month dyspnea intensified, hard eliminated sputum appeared. On auscultation over all lungs: dry rales. What bronchodilators must be appointed?

- A. Euphyllin

- B. Tiotropium bromide
- C. Teopek
- D. Berotek
- E. Papaverin

82. The patient was suffering on COPD for 12 years. During the last year exacerbations became more frequent, breathlessness and cough intensified, an amount of purulent sputum grew up to 100-150 ml per day. At the radiography: deformation of lungs, vertical heart shadow. About what complication it follows to think first?

- A. Lung cancer, peripheral form
- B. Lung atelectasis
- C. Spontaneous pneumothorax
- D. Pulmonary heart
- E. Bronchiectasis

83. The man, 57 years old, was suffering on COPD for 27 years. Recently his state worsened: breathlessness intensified, aching pain in the heart area appeared. At the examination pressure in pulmonary artery (45) was determined. What is the most credible complication?

- A. Secondary pulmonary hypertension
- B. Pulmonary emphysema
- C. Bronchiectasis
- D. Asthmatic status of I stage
- E. Diffuse pneumosclerosis

84. At the patient, 44 years old, whistling rales in lungs, hard expiration occasionally appear at inhalation of allergen (smell of mould). Daytime symptoms of short duration occur less than once a week, night-less than 2 times a month. The peak rate of expiration and volume of the forced expiration for 1 sec. is 80% of the proper value. Between exacerbations there are no rales in lungs. What is the diagnosis?

- A. Intermittent bronchial asthma

- B. Easy persistent bronchial asthma
- C. Persistent bronchial asthma of moderate severity
- D. Severe persistent bronchial asthma
- E. COPD

85. At the patient, 30 years old, after viral infection daily symptoms of hard whistling breathing, accompanied with violation of activity and sleep, appear, night time symptoms occur more than once a week. The peak rate of expiration and volume of the forced expiration for 1 sec. is 60-80% of the proper value, variability >30%. There is a need in daily taking of beta 2-agonists of short action. What is the diagnosis?

- A. Easy persistent bronchial asthma
- B. Intermittent bronchial asthma
- C. Persistent bronchial asthma of moderate severity
- D. Severe persistent bronchial asthma
- E. Asthmatic status

86. The patient M., 46 years old, is smoking over 26 years and suffering on COPD. There are complaints on expiratory dyspnea at exercise, periodical unproductive cough in the morning, sometimes sputum with blood admixtures. At the fibrobrochoscopy: hyperemia and deformation of bronchi. What are the irreversible pathogenic mechanisms of obstruction:

- A. Hypercrinia and dyscrinia
- B. Bronchospasm
- C. Fibroblastic deformation and obliteration of bronchi
- D. Bronchial infiltration with eosinophiles
- E. Inflammatory edema, hyperplasia of glands

87. At the patient, 32 years old, who abused of alcohol, with massive pneumonia, fever to 39-40°C, hard breathing, a big amount of purulent sputum appeared, blood sedimentation and number of rod nuclear leukocytes increased. At the radiography: massive infiltration with clearing in the center of the right lung lower lobe. What kind of complication can be suspected?

- A. Bronchiectasis
- B. Acute pulmonary abscess
- C. Infarct-pneumonia
- D. Pulmonary gangrene
- E. Pleural empyema

88. The patient, 38 years old, complains on body temperature 38,5-39,0°C, cough with rusty sputum, breathlessness, general weakness. RR 26 per minute. At the lung examination: enhancement of voice trembling, dullness on percussion, bronchial breathing under the left scapula. At the radiography: infiltrate of the left lung lower lobe. Your previous diagnosis?

- A. Left lung pneumonia
- B. Exudative pleurisy
- C. Friedlander`s pneumonia
- D. Abscess of the left lower lobe
- E. Bronchiectasis (flare)

89. At the patient, 24 years old, after taking diclofenac in connection with headache asthma attack with unproductive cough and itch of skin appear. In the anamnesis: urticaria. At the inspection: face edema, swelling of neck veins, the patient is sitting, basing his hands on a chair and stridorous breathing is heard. Your diagnostic conclusion?

- A. Bronchial asthma
- B. Quincke`s edema
- C. Hysterical asthma
- D. Cardiac asthma
- E. Aspiration of diclofenac tablet

90. All these mediators, produced by alveolar macrophages, were determined at the patient with idiopathic pulmonary fibrosis, except for:

- A. Fibronectin
- B. Factors, causing the growth of platelets
- C. Growth factor, produced by alveolar macrophages

- D. Collagenase
- E. Leukotriene

91. At the patient with progressive breathlessness arterial PO<sub>2</sub> is 59 mm. Hg at breathing with normal air and 61 mm. Hg at breathing with air oxygen concentrate to 40%. In both cases, CO<sub>2</sub> is normal. Which of the following states does not correspond to the above findings?

- A. Idiopathic pulmonary fibrosis
- B. Atelectasis
- C. Pneumonia caused by klebsiella
- D. Cardiogenic pulmonary edema
- E. Syndrome Osler-Weber-Rendu (teleangiectasis)

92. The diagnosis of allergic bronchopulmonary aspergillosis in patients with asthma, repeated lung infiltration and eosinophilia will be confirmed by all subsequent findings, except for:

- A. Expressed tuberculin test, skin reaction on *Aspergillus fumigatus*
- B. Positive culture of sputum on *Aspergillus fumigatus*
- C. Presence of serum precipitates on *Aspergillus fumigatus*
- D. Increase of immunoglobulin E in blood serum
- E. Radiographic signs of bronchiectasis

93. The syndrome of the fimbriated epithelium violation, including Cartagener`s syndrome, can cause all these signs, except for:

- A. Bronchiectasis
- B. Pneumonia
- C. Returning bronchitis
- D. Interstitial pulmonary fibrosis
- E. Sterility

94. Bronchospasm may be caused by exposure in air of working space of all the following, except:

- A. Cotton
- B. Dysocyanate tolueni
- C. Flyuorocarbone
- D. Flax
- E. Silicon

95. The formation of cavities is a common complication of pneumonia, which causes:

- A. Anaerobic bacteria
- B. Legionella
- C. Streptococcus
- D. Mycoplasma
- E. Influenza virus

96. The patient, 28 years old, entered the TB hospital with complaints on weakness, fever to 38°C, cough with sputum, weightloss. At the radiography: in the right lung upper lobe infiltrative changes with presence of destruction determined, focuses of dissemination in S1-2 of the right and S6 of the left lungs. In the analysis of sputum: mycobacteria tuberculosis +. What is the regimen of treatment in intensive phase?

- A. Rifampicin + isoniazid + pyrazinamide + streptomycin
- B. Rifampicin + isoniazid + streptomycin
- C. Rifampicin + isoniazid + streptomycin + ethambutol + pyrazinamide
- D. Rifampicin + isoniazid + pyrazinamide + ethambutol
- E. Rifampicin + isoniazid + ethambutol + etionamid

97. The patient, 36 years old, entered the TB clinic with first diagnosed tuberculosis (11/04/2003) of lungs (disseminated, phase of infiltration and dissociation), Destr+, mycobacteria tuberculosis+, Resist-, ResistII0, Hist0, Cat1 (2003). According to the category of the patient, the following treatment was appointed: rifampicin + isoniazid + pyrazinamide + streptomycin + ethambutol. In the anamnesis: the patient is abusing of alcohol. What group preparation must be appointed?

- A. Enzyme
- B. Expectorant
- C. Antispasmodic
- D. Analgesic
- E. Hepatoprotectors

98. The patient, 40 years old, is on inpatient treatment in the tuberculosis dispensary for two weeks with first diagnosed tuberculosis of the right lung S6 (infiltrative, phase of dissociation), Destr+, mycobacteria tuberculosis+, Resist0, ResistII0, Hist0, Cat1 (2004). According to the category of the patient, the following treatment was appointed: rifampicin + isoniazid + pyrazinamide + streptomycin + ethambutol. At the patient complaints on tinnitus and dizziness appear. What drug caused such side effects?

- A. Streptomycin
- B. Isoniazid.
- C. Pyrazinamide
- D. Ethambutol
- E. Rifampicin

99. The patient, 38 years old, complains on fever to 37,9°C, cough with a small amount of mucopurulent sputum, pain in the right side. She fell sick 5 days ago after supercooling. At the inspection: acrocyanosis of the lips. Pulse 96 per minute. AP 120/80. In lungs: enhancement of voice trembling, dullness on percussion, moist smallbubbly rales on the right below the angle of scapula. What is the most credible diagnosis?

- A. Right lung atelectasis
- B. Exudative pleurisy
- C. Right lung abscess
- D. Focal pneumonia (right lung)
- E. Infiltrative pulmonary tuberculosis

100. The patient, 56 years old, complains on constant pain in the right chest, not associated with the act of breathing, for the last 2 months, cough with blood admixtures in sputum, weakness, reduced efficiency, fatigue. At the

radiography: in the lower right lung field shadow of spherical form, size 4x6 sm, connected with roots of the lungs, is marked. What is the most credible diagnosis?

- A. Tuberculoma
- B. Metastasis
- C. Lung abscess
- D. Pneumonia
- E. Peripheral lung cancer

101. The patient, 51 years old, complains on weakness, breathlessness, pain in the left half of the chest, constant cough with viscose sputum, sometimes with blood admixtures. Weightloss of 5,0 cg for the last 3 months. At the roentgenological research: homogeneous total shadow of the left lung is defined; organs of mediastinum are replaced to the left. About what diagnosis it follows to think?

- A. Pulmonary gangrene
- B. Total exudative pleurisy
- C. Pneumonia
- D. Lung atelectasis
- E. Pleural empyema

102. At the patient, 50 years old, after supercooling increase of body temperature to 40°C, short of breath and chest pain on the right appeared, approximately 100 ml of purulent sputum with blood admixtures was eliminated. At the radiography: unhomogeneous massive infiltration in the right lung, two sites of clearing, where lung structure is invisible. Mycobacteriua tuberculosis and atypical cells in sputum were not detected. Your previos diagnosis:

- A. Pulmonary gangrene
- B. Infiltrative tuberculosis of lungs in the dissociation phase
- C. Lung tumor with dissociation
- D. Pleural empyema
- E. Acute right lung abscess

103. The patient, 49 years old, a car mechanic, is smoking from the 14 years old age to 1,5 packs a day. There are complaints on attacks of cough that occurs at entering the cold, shortness of breath with hard expiration, weakness. At the inspection: remote rales; multiple sonorous dry rales over all fields. At the radiography: thickening of pulmonary picture, roots compaction. The most credible diagnosis:

- A. Bronchial asthma
- B. COPD
- C. Pulmonary tuberculosis
- D. Pneumoconiosis
- E. Laryngospasm

104. The patient A., 35 years old, a driver of the transport, smokes two packs of cigarettes a day, complains on constant cough. During the last week he noticed strengthening of cough with a small amount of mucopurulent sputum with blood admixtures. In lungs: single dry rales, more in the lower areas. The analysis of sputum: many neutrophils. At the radiography: enhancement of pulmonary picture. The most credible diagnosis?

- A. Bronchiectasis
- B. Pulmonary tuberculosis
- C. Pneumoconiosis
- D. Chronic bronchitis
- E. Lung cancer

105. The patient, 56 years old, is examined in connection with chronic bronchitis. There are complaints on appearance of chest pain on the right, cough with sputum like "raspberry jelly", shortness of breath, weakness. Weightloss is 10 cg during the past two months. What is your previous diagnosis?

- A. Lung cancer
- B. Pneumonia
- C. Bronchiectasis
- D. Lung abscess

## E. Pulmonary tuberculosis

106. The 27-year-old man complains on general weakness, increase of body temperature to 38-39°C, dry cough, pain in the right half of the chest at deep breath and cough. Fell ill acutely four days ago after hypothermia. Body temperature 38,4°C, AP 130/80, pulse 94 per minute, RR 20 per minute. At the lung examination: dullness on percussion in the subscapular area on the right, reduced vesicular breathing. What is the most credible diagnosis:

- A. Acute respiratory disease
- B. Bronchitis
- C. Pneumonia
- D. Bronchiolitis
- E. Dry pleurisy

107. The patient, 19 years old, complains on fever to 39°C in the evenings, expressed cough, elimination of a big amount of sputum with unpleasant smell. He is ill for a few years, the last exacerbation associated with hypothermia. At the lung examination: dullness on percussion in the lower right lung, midbubbly rales. What is the most credible diagnosis?

- A. Chronic bronchitis
- B. Bronchiectasis
- C. Lung abscess
- D. Pulmonary gangrene
- E. Pneumonia

108. The patient, 60 years old, is complaining on dry cough, increasing shortness of breath, sometimes hemoptysis during 3 months. The radiography: inhomogeneous shadow with vague contours in the field of roots on the right, deep cords, penetrating the lung tissue; mediastinal shift to the right. Diagnosis?

- A. Pulmonary infarction
- B. Pulmonary sarcoidosis
- C. Laryngeal cancer

- D. Tuberculosis
- E. Lung cancer

109. The woman, 55 years old, complains on heavy feeling and pain in the right half of the thorax, unproductive cough, dyspnea. In the anamnesis: rheumatism. At the lung examination: dull sound on percussion, sharply reduced breathing from the right third rib and down. The radiography: homogeneous shadow with oblique line from the third rib. The analysis of the obtained fluid: Rivalt's test is positive, at the microscopy-lymphocytes. Your previous diagnosis?

- A. Exudative serous pleurisy
- B. Hydrothorax
- C. Pleural empyema
- D. Chylothorax
- E. Pleural mesothelioma

110. The patient, 22 years old, acutely fell ill in summer: high fever, shortness of breath, dry cough, pleural pain, myalgia, arthralgia. At the inspection: moist rales on the right, pleural friction noise. At the radiography: infiltration of the right lung lower lobe remains. In blood: L 11/10/9/1, r/n 70%, l 8%, blood sedimentation 42 mm per hour. What is the causative factor of the disease?

- A. Pneumococcus
- B. Mycoplasma
- C. Streptococcus
- D. Staphylococcus
- E. Legionella

111. The patient, 45 years old, complains on breathlessness at little physical exercise, cough with transparent sputum that hardly separates, asthma attacks to 3 times a day, more at night, perspiration. She is ill over five years. Allergy on dust and fume. Takes becotid about a year. Diagnosis?

- A. Tuberculosis
- B. COPD

- C. Bronchial asthma
- D. Bronchiectasis
- E. Pulmonary vasculitis

112. The patient, 44 years old, complains on asthma attack that appeared suddenly in the night after supercooling. She is ill over 10 years. Barrel-shaped thorax. At the lung examination: boxing sound on percussion, a big amount of dry rales. In blood: moderate leukocytosis, eosinophilia up to 10%. The radiography: increase of lung transparency. What is the most credible diagnosis?

- A. Bronchiectasis, aggravation
- B. COPD, aggravation
- C. Chronic bronchitis
- D. Bronchial asthma, aggravation
- E. Eosinophilic lung vasculitis

113. At the patient, 51 years old, there are complaints on cough attacks with elimination of yellow color sputum, breathlessness at exercise. He smokes for more than 30 years. At the inspection: body temperature 37,2°C, no edema, pulmonary sound with boxing shade over the lungs, harsh breathing, multiple dry scattered whistling rales; heart tones are clear, rhythmic, heart rate 80 per minute, AP 120/85, liver is not enlarged. What is the medicine of the first choice?

- A. Atrovent
- B. Theophylline
- C. Astmopent
- D. Salbutamol
- E. Prednisolone

114. The man, 52 years old, a metallurgist, complains on breathlessness, which increases with exercise. He is ill about 8 years. At the inspection: RR 22 per minute, pulse 76 per minute, AP 130/80, body weight 120 cg. In lungs: vesicular breathing. Lung vital capacity is 60% of normal. The radiography: cords in pulmonary picture, enhancement of lung fields

transparency. What is the mechanism of the respiratory failure development?

- A. Spasm of pulmonary artery branches
- B. Constriction of airways
- C. Reduction of elastic properties of lungs
- D. Limitation of chest mobility
- E. Violation of the surfactant synthesis

115. The man, 65 years old, complains on dyspnea with hard expiration, cough with a yellow sputum. In the anamnesis: smoking for more than 40 years. At the inspection: body temperature 37,1°C, RR 24 per minute, heart rate 88 per minute, AP 130/70. In lungs: vesicular, reduced breathing, dry whistling rales. Heart tones are muffled. What is the most credible diagnosis:

- A. Pulmonary emphysema
- B. Bronchiectasis
- C. Bronchial asthma
- D. Lung tumor
- E. COPD

116. The woman, 18 years old, a seamstress, complains on attacks of dry cough with lacrimation, feeling of nasal congestion, which appear in work time. In the anamnesis: frequent ARI; the patients` mother is suffering on bronchial asthma. At the inspection: RR 18 per minute, HR 80 per minute, AP 110/70. In lungs: vesicular breathing, scattered dry rales. Heart tones are muffled. At the test with salbutamol reversibility of bronchial obstruction is determined. What is the tactics?

- A. To take intal
- B. To change residence
- C. To take berotek constantly
- D. To take antihistamines
- E. To change job

117. The man, 22 years old, complains on shortness of breath, which

increases at physical load. Considers himself sick about 5 years. At the inspection: body temperature 36,5°C; RR 20 per minute, pulse 80 per minute, AP 125/80. Barrel- shaped thorax. In lungs: boxing sound on percussion, reduced vesicular breathing over all lung fields. What is the leading mechanism of the alveolar ventilation violation?

- A. Dysfunction of respiratory center
- B. Violation of chest mobility
- C. Toxic effects of eosinophiles at bronchi
- D. Obstructive failure of external breathing
- E. Restrictive failure of external breathing

118. The man, 50 years old, complains on shortness of breath, cough, pain in the left half of the thorax, increase of body temperature to 37,5°C. Fell ill three weeks ago. In the anamnesis: smoking for 30 years. At the inspection: reduced body weight, cyanosis of the lips, emphysematous chest, dull sound on percussion from the front III rib and down on the left, no breathing in the interscapular area. The radiography: intense homogeneous shadow on the left, heart shadow is shifted to the right. Your diagnosis?

- A. Lung atelectasis
- B. Pneumonia
- C. Infiltrative tuberculosis
- D. Hydrothorax
- E. Exudative pleurisy

119. The patient, 49 years old, complains on asthma, cough with no sputum. Repeatedly applied salbutamol, intal, but without effect. At the inspection: he is sitting, leaning on a table, cyanosis of the face, no peripheral edema. At the lung examination: shallow, hard breathing, sometimes is not heard; scattered rales, significantly prolonged expiration. Heart tones are muffled, tachycardia. Pulse 112 per minute, AP 110/70. Liver is near the edge of rib arc. What is the previous diagnosis?

- A. Bronchial asthma of moderate severity
- B. COPD

- C. Asthmatic status
- D. Aspiration
- E. Cardiac asthma

120. As a result of microbiological test of sputum chlamydial etiology of pneumonia was determined. What antibacterial drug is the most appropriate?

- A. Clarithromycin
- B. Cefazolin
- C. Gentamicin
- D. Ceftriaxone
- E. Biseptol

121. The student, 22 years old, fell ill acutely with fever to 39°C, cough, pain under the right scapula during inspiration and coughing. In 3 days dyspnea intensified. RR 32 per minute. At the lung examination: dull sound on percussion, reduced voice trembling, breathing is not heard from the scapula angle and down. The most effective method of treatment is:

- A. Appointment of furosemide
- B. Pleural puncture
- C. Strict bed care
- D. Appointment of cephalosporin
- E. Physiotherapeutic treatment

122. The patient, 54 years old, complains on shortness of breath at physical load, cough with hardly eliminated sputum. At the inspection: diffuse cyanosis; barrel- shaped thorax. In lungs: reduced vesicular breathing with extended expiration, dry whistling rales. AP 140/80. Pulse 92 per minute, rhythmic. The spirometry: lung vital capacity 65%, volume of the forced expiration for 1 sec./forced lung capacity 50%. Determine the type of respiratory failure:

- A. Mixed type with predominance of obstruction
- B. Restrictive type of respiratory failure

- C. Obstructive type of respiratory failure
- D. Mixed type with predominance of restriction
- E. No respiratory failure

123. The patient N., 46 years old, entered the surgical unit after operation on appendicitis. In 4 days there were recurrent chills, cough, shortness of breath, fever 38,5°C, leukocytosis with rod nuclear change. The radiography: infiltrative focus in the lower lobe of the right lung. What state developed at the patient?

- A. Lung abscess
- B. Infarct-pneumonia
- C. Pneumonia
- D. Nosocomial pneumonia
- E. Pulmonary tuberculosis

124. At the roentgenological research of the patient, 46 years old, who complains on fever and cough with sputum, in the 10 segment of the left lung annular shadow 8 sm in diameter with thick wall and horizontal liquid level is determined; the rest of the lung tissue is without changes. What is the substrate of the shadow?

- A. Bronchiectasis
- B. Tuberculosis cavern
- C. Tuberculoma
- D. Pulmonary gangrene
- E. Drained abscess

125. The student complains on cough with mucopurulent sputum, sometimes with blood admixtures, body temperature 37,6°C, weakness, perspiration. In the anamnesis: frequent colds since childhood; during the last years exacerbations of chronic bronchitis occur twice a year. A doctor suspected bronchiectasis. What method of diagnostics can confirm the diagnosis?

- A. Anamnesis of the patient
- B. Bronchography

- C. Lung examination
- D. Radiography of lungs
- E. Tomography of lungs

126. At the patient, 60 years old, who is keeping a bed in the hospital with left lung exudative pleurisy, rapid accumulation of fluid after each evacuation is determined. What is the diagnosis?

- A. Systemic lupus erythematosus
- B. Dresler`s syndrom
- C. Blastomatous process
- D. Postpneumonic pleurisy
- E. Pleural tuberculosis

127. The patient K., 56 years old, complains on constant shortness of breath, cough, pain in the chest, persiration. In the anamnesis: smoking for 25 years. At the inspection: diffuse cyanosis of the face, pulse 110/min., heart is increased, tones are reduced. In lungs: boxing sound on percussion, dry whistling rales, extended expiration. RR 26 per minute. Your diagnosis?

- A. COPD
- B. Bronchial asthma
- C. Lung cancer
- D. Fibrosing alveolitis
- E. Laryngospasm

128. The patient, 56 years old, complains on cough with mucous sputum, which lasts about 4 months a year, breathlessness, increase of body temperature 38,7°C. He is sick for 3 years; smokes. At the lung examination: harsh breathing, dry rales. The radiography of the chest cavity: roots are expanded, corded. Your diagnosis?

- A. Pneumonia
- B. Chronic bronchitis
- C. Pneumoconiosis
- D. Acute bronchitis

## E. Bronchial asthma

129. The patient, 56 years old, complains on constant pain in the right chest during the last 2 months, which is not associated with the act of breathing, cough with blood streaked sputum, weakness, reduced efficiency, fatigue. At the chest X-ray: shadow of spherical form, 4x6 sm in size, connected with roots of the lungs in the right lung lower area. What is the most credible diagnosis?

- A. Metastasis
- B. Peripheral lung cancer
- C. Lung abscess
- D. Pneumonia
- E. Tuberculoma

130. The patient S. was on treatment with bronchiectasis. After coughing shortness of breath, dizziness, compress feeling in the chest suddenly appeared, with cough began to eliminate light foamy blood. At the inspection: pallor of skin, pulse 110 per minute, RR 30 per minute. For further treatment the patient must be hospitalized to:

- A. Out-patient treatment is possible
- B. Pulmonological unit
- C. Cardiological unit
- D. Surgical unit
- E. Intensive care unit

131. At the patient there are fever 39°C, cough with blood-streaked sputum with unpleasant smell. At the lung examination: amphoric breathing in the lower right lung lobe, moist midbubbly rales. The radiography of the chest: cavity to 4,0 sm in diameter with the level of liquid in the right lower lobe. Your diagnosis?

- A. Lung abscess
- B. Pulmonary gangrene
- C. Infiltrative tuberculosis

- D. Lung cancer
- E. Pneumonia

132. The patient N., 35 years old, complains on cough with a big amount of purulent sputum in the morning, sometimes with blood admixtures, general weakness, weightloss. General state is satisfactory, flat chest, RR 18 per minute. In lungs: harsh breathing, dry scattered rales. What research is the most informative for confirmation of the diagnosis?

- A. Radiography
- B. Bronchoscopy with biopsy
- C. Bronchography
- D. Spirography
- E. Scintigraphy

133. The patient complains on dyspnea in rest, fever, perspiration, pain in the chest. At the lung examination: the right half of the thorax is behind the act of breathing, dull sound on percussion, absence of respiratory noises. At the X-ray: homogeneous shadow of 2/3 of the right lung. The most informative test for diagnostics is:

- A. Pneumotahometry
- B. Bronchoscopy
- C. Bronchography
- D. Puncture of pleural cavity
- E. Spirography

134. At the patient L., 26 years old, with pneumonia of the left lung lower lobe, during coughing sharp pain in the left chest appeared. At the inspection: diffuse cyanosis, swelling of the left half of the chest, tympanic sound on percussion, no breathing sounds; displacement of the right heart bound to the midclavicular line. . What test is the most informative:

- A. Bronchoscopy
- B. Radiography
- C. Bronchography

D. Pneumotahometry

E. Spirography

135. The patient D., 47 years old, complains on fever to 39°C, perspiration, dry cough, breathlessness, pain in the right half of the chest at deep breath and coughing. Fell ill acutely six days ago. At the inspection: severe general state, skin is pale, RR 28 per minute. In lungs: voice trembling is absent in the lower right half of the thorax, dull sound on percussion, breathing is sharply reduced. Your previous diagnosis:

A. Pneumonia

B. Acute bronchitis

C. Right lung exudative pleurisy

D. Pulmonary embolism

E. Right lung hydrothorax

136. The patient N., 31 years old, complains on cough with elimination of mucopurulent sputum with unpleasant smell, with "open mouth", subfebrile body temperature, dyspnea, weightloss. She is ill since childhood. At the inspection: pale skin, unguial phalanges as "drum sticks", nails as "hour glass", mosaic pulmonary sound on percussion, harsh breathing, areas of moist midbubbly rales. Your diagnosis:

A. Virus pneumonia

B. Chronic bronchitis, in the phase of flare

C. Lung abscess

D. Bronchiectasis

E. Pulmonary hypoplasia

137. The patient M., 29 years old, a nurse, after contact with penicillin about 2 years ago became to notice scratch in the throat, attacks of cough, and later asthma attacks. At the time of review of the patient asthma attack suddenly developed, which passed after salbutamol inhalation. Nasal respiration is hard. At the lung examination: boxing sound on percussion, reduced breathing with extended expiration, scattered dry rales. RR 17 per minute. Pulse 97 per

minute. Your previous diagnosis:

- A. COPD
- B. Bronchiectasis
- C. Bronchial asthma
- D. Idiosyncrasy
- E. Pneumothorax

138. The patient, 32 years old, complains on shortness of breath, pain in the right side at breathing, cough with rusty sputum, fever with chills, weakness. At the inspection: RR 24 per minute, enhancement of voice trembling, dullness on percussion, crepitation in the posterior area of the lower-right half of the thorax. After 5 days of treatment dyspnea intensifies, trembling voice reduces, and vesicular breathing is hardly heard. What complication developed at the patient?

- A. Atelectasis
- B. Exudative pleurisy
- C. Carnification of lung
- D. Abscess
- E. Pneumothorax

139. The patient, 51 years old, complains on expressed dyspnea, heavy feeling in the left half of the thorax. At the inspection: RR 30 per minute, heart rate 108 per minute. In lungs: voice trembling and vesicular breathing are sharply reduced, dull sound on percussion over the left half of the chest. The radiography: homogeneous shadow to the level of II rib with upper oblique limit, mediastinum is shifted to the right. Method of choice in treatment is:

- A. Intravenous introduction of big doses of glucocorticosteroids
- B. Urgent bronchofibroscopy
- C. Inhalation of betta-2-agonists of short action
- D. Intravenous introduction of antibiotics
- E. Medical and diagnostic pleural puncture

140. The patient, 20 years old, complains on fever up to 37,5°C, shortness of

breath, cough with purulent sputum, sometimes with blood admixtures. At the inspection: fingers as "drum sticks", harsh breathing, dry and moist rales on auscultation of the lower lungs. At the X-ray: enhancement of pulmonary picture. What is the disease?

- A. Bronchiectasis
- B. Bronchial asthma
- C. COPD
- D. Lung abscess
- E. Carcinomatosis of lungs

141. The patient, 40 years old, complains on fever to 39°C, chill, weakness, pain in the right half of the chest, dry cough. In lungs: dull tympanic sound on percussion, crepitation on the right, below the scapula, from paravertebral to midaxillar lines. In blood: leukocytosis, neutrophilic shift to the left, increased blood sedimentation. Your diagnosis:

- A. Pneumonia
- B. Dry pleurisy
- C. Pulmonary tuberculosis
- D. Bronchiectasis
- E. COPD

142. The patient, 35 years old, complains on rare (less than 1 time per week) asthma attacks, which are easily passed after inhalation of beta-2-agonists of short action. There are dry whistling rales in the attack period; in the intervals between asthma attacks volume of the forced expiration for 1 sec. is 80% of the proper value. The diagnosis:

- A. Persistent bronchial asthma of moderate severity
- B. Easy persistent bronchial asthma
- C. Intermittent bronchial asthma
- D. Severe persistent bronchial asthma
- E. This information is not enough to determine the severity of asthma

143. At the patient, 58 years old, after surgery there were complaints on

pressing pain behind the sternum, cough with hemoptysis, breathlessness. In the anamnesis: COPD. At the inspection: cyanosis, accent of II tone on pulmonary artery, pleural friction noise. The X-ray of the chest cavity: swelling of pulmonary cone. At the ECG: concordant changes in III, aVR, V1-2. In blood: L 8,0/10/9/1, blood sedimentation 35 mm/hr., increased activity of aldolase (AST-norm). What is the most credible diagnosis?

- A. Myocardial infarction
- B. Stenocardia
- C. Lung cancer
- D. Bronchiectasis
- E. Pulmonary embolism

144. The patient, 28 years, complains on cough with selection of a small amount of rusty sputum, increase of body temperature to 38,5°C, breathlessness, palpitation, general weakness. He is ill for two weeks. At the inspection: dullness on percussion in the right lung lower areas, small- and midbubbly rales. At the roentgenographic research: infiltration of lung tissue in the right lower lung. What is the most credible diagnosis?

- A. Eosinophilic infiltrate
- B. Peripheral lung cancer
- C. Pneumonia
- D. Exudative pleurisy
- E. Chronic obstructive bronchitis

145. The sick, 25 years old, is delivered by ambulance with complaints on sharp piercing pain in the right chest, which radiates to the neck, hands, choking. In the anamnesis: pulmonary tuberculosis during 6 months. At the inspection: the patient is sitting, cold sweat, expanding of the right intercostal spaces, restricting of respiratory movements, tympanic sound on percussion at the 5-7 ribs level on the right from anterior to posterior axillar lines, displacement of cardiac dullness to the left. At the X-ray: no pulmonary picture, along the periphery the lung field is separated from lungs; mediastinum is shifted to the left and the diaphragm cone- down. Your diagnosis:

- A. Exudative pleurisy
- B. Dry pleurisy
- C. Bronchial asthma
- D. Spontaneous pneumothorax
- E. Lung cancer

146. The patient, 37 years old, complains on cough with rusty sputum, pain in the left half of the chest at altitude of breath, choking of mixed character, fever to 37.6C. At the inspection: RR 28 per minute, dull sound on percussion in the left lung lower lobe, bronchial breathing. Which of antibacterial drugs is the drug of choice in this case?

- A. Amoxiclav
- B. Thienam
- C. Moxifloxacin
- D. Bisseptol
- E. Levomycetin

147. The patient, 58 years old, complains on breathlessness during exercise and dry cough mainly in the morning. He is ill for 16 years. At the inspection: pulmonary sounds with boxing shade, harsh breathing, scattered, dry whistling rales. The radiography of the chest cavity: increased transparency of the lung fields, deformed, corded roots. The spirometry: moderate decline of lung vital capacity; significant generalized irreversible bronchial obstruction. Your diagnosis?

- A. Bronchial asthma
- B. Bronchiectasis
- C. COPD
- D. Pneumonia
- E. Lung cancer

148. The patient K., 22 years old, after severe hypothermia entered the clinic with complaints on pain in the right side that increased at coughing, fever to 39C, shortness of breath, chill. At the inspection: RR 28 for 1 minute, HR 112

for 1 minute, rhythmic, clear heart tones; the right half of the thorax is behind the act of breathing, dull tympanic sound on percussion below the right scapula angle, reduced vesicular breathing, crepitation, voice trembling is enhanced. Your diagnosis?

- A. Focal nosocomial pneumonia
- B. Aspirational pneumonia
- C. Focal right lung pneumonia on the background of immunodeficiency
- D. Croupous pneumonia
- E. Infiltrative tuberculosis of the right lung lower lobe

149. The patient S., 32 years old, a miner, entered the clinic with complaints on severe piercing pain in the left half of the chest, which increased at breathing, fever, chill. At the inspection: forced body position (lying on the right side); the left half of the thorax is behind the act of breathing, percussion is painful; there are smallbubbly rales on the background of sharply reduced breathing along midaxillar line at the 5-6 rib level. Diagnosis?

- A. Dry pleurisy
- B. Lung abscess
- C. Pneumonia
- D. Infiltrative tuberculosis
- E. Loeffler`s eosinophilic pneumonia

150. At the woman, 38 years old, who suffered on chronic sinusitis for a long time, complaints on pain, swelling, redness of the knee joint (after injury) appeared. A doctor appointed NSAIDs. The allergological anamnesis is not overburdened. On the background of that, severe asthma attack developed. The most credible mechanism of bronchospasm is:

- A. Aspirin asthma
- B. Atopic asthma
- C. Mixed asthma
- D. Asthma of physical effort
- E. Dyshormonal asthma

151. At the 16-year-old boy, a football player, expressed expiratory dyspnea appears after quick pace of the game. Allergological and hereditary anamnesis are not overburdened. At the inspection, in rest: correct cardiac rhythm, clear tones. In lungs: vesicular breathing, no rales. Spirometry is without changes. The previous diagnosis?

- A. Psychophysiological short breathing
- B. Mental asthma
- C. Asthma of physical effort
- D. Syndrome of obstructive somnolent apnea
- E. Trachea-bronchial dyskinesia

152. The patient Z., 40 years old, complains on cough with purulent sputum, asthma attacks that occur mainly in the morning, weakness, shortness of breath when walking, periodic increase of body temperature 37,6-37,7C. Which of the following cases, this patient will be recommended surgical treatment?

- A. Bilateral diffuse bronchiectasis, complicated with pulmonary heart
- B. Bronchiectasis, complicated with respiratory failure of III stage
- C. Subclinical bronchiectasis within one segment
- D. Bronchiectasis within one lung lobe, complicated with bleeding
- E. Bilateral diffuse bronchiectasis with uncomplicated course

153. The patient, 45 years old, a foundry worker during 15 years, addressed a therapist with complaints on shortness of breath at little physical exercise, cough, piercing feeling in the chest. At the lung X-ray: small shadows of round form with clear contours of diffuse nature with medium intensity in the upper lung. What kind of specialist should set the final diagnosis?

- A. Occupational pathologist
- B. Oncologist
- C. TB
- D. Pulmonologist
- E. District physician of polyclinics

154. At the radiography of the chest cavity of the patient, who has been treated during 25 years on bronchial asthma, from the side of the heart the following changes are revealed: swelling of the cone of pulmonary artery, significant increase of right ventricle. On the ECG: deviation of electrical axis to the right, P pulmonale. What caused the appearance of such changes?

- A. Left atrial hypertrophy
- B. Left ventricular hypertrophy
- C. Left heart hypertrophy
- D. Right heart hypertrophy
- E. Right ventricular hypertrophy

155. At the woman, 28 years old, who applied to polyclinics, pneumonia was diagnosed (with localization in the left lung lower lobe). What is the starting treatment:

- A. Clarithromycin
- B. Penicillin
- C. Cyprobay
- D. Vancomycin
- E. Tobromicyn

156. The 35-year-old woman, a seller, fell ill acutely with increase of body temperature 39-40C, chill, cough with a small amount of mucous sputum, pain in the right side. In lungs: dullness on percussion on the right under the scapula, crepitation. The radiography of the chest cavity: unhomogeneous shadow with diffuse contours in the right lung lower lobe. Mantoux test 5mm. Your previous diagnosis:

- A. Infiltrative tuberculosis
- B. Lung infarct
- C. Lung abscess
- D. Lung cancer
- E. Pneumonia

157. During daily round of patients a physician determined at the patient after

appendectomy, which was held on the background of acute respiratory disease, shortness of breath (RR 45 for 1 minute), sharply reduced breathing over both lungs, tachycardia 132 for 1 minute, hypotension 85/40. Symptoms of bleeding, peritonitis were not found. Blood saturation decreased to 60%. What is the urgent treatment at this stage of respiratory failure?

- A. Supply of the upper respiratory tract passage
- B. Appointment of cardiotonics
- C. Appointment of respiratory analeptics
- D. Ventilation with oxygen
- E. Cardiopulmonary and cerebral reanimation

158. The man, 52 years old, was observing on COPD about 20 years. Two months ago breathlessness increased, heavy feeling in the right intercostal area appeared. At the inspection: diffuse cyanosis, body temperature 37,0C, RR 32 for 1 minute, Ps 92 for 1 minute AP 110/80, accent of II tone on pulmonary artery tone, liver+2,0 sm. In lungs: dry rales. What test is it necessary to conduct for diagnostics of the developed complication?

- A. Echo-CG
- B. Picfloumetry
- C. Spirography
- D. Catheterization of the heart cavity
- E. Catheterization of pulmonary vessels

159. The patient, 58 years old, is suffering on COPD for 25 years. During the last six months heart failure symptoms appeared: shortness of breath, edema of the lower extremities. At the inspection: diffuse cyanosis, RR 26 for 1 minute, heart tones are deaf, rhythm is correct, Ps 78 for 1 minute, AP 150/90, liver is on 5,0 sm below the rib arc, edema of the lower extremities. On the ECG: increase of P amplitude in I, III, aVF leads and deep S in V4-V6. What is the starting mechanism of heart changes?

- A. Bronchial obstruction
- B. Hypertension in a small circle of blood circulation
- C. Right ventricular hypertrophy

- D. Arterial hypertension in a large circle of blood circulation
- E. Arterial hypoxemia

160. At the patient, 43 years old, after taking aspirin, shortness of breath, hard breathing, edema of the face, urticar rash on the limbs appear. At the inspection: severe general state, cyanosis of skin, stridorous breathing, RR 38 for 1 minute. AP 120/80, HR 120/min. What drug should be the first?

- A. Suprastin
- B. Theophylline
- C. Adrenalin
- D. Erius
- E. Dimedrol

161. The patient S., 42 years old, a foundry worker for 16 years, complains on pain in the area of scapula, dry cough, shortness of breath during load. Objectively: pulmonary sound with boxing shade on percussion in the lower lateral areas of the chest, mobility of lower lung edges is not changed, a big amount of dry rales. Spirography: lung vital capacity is 78%. At the radiography: enhancement and deformation of pulmonary picture, mainly in middle and lower lung areas, a small amount of nodular shadows 2-3 mm in diameter, lung roots are expanded, transparency of basal lung is increased. The previous diagnosis.

- A. Silicosis of I st. Chronic bronchitis. Pulmonary emphysema. RF of I st.
- B. Silicosis of I st., uncomplicated
- C. Silicosis of I st. Pulmonary emphysema. RF of I st.
- D. Silicosis of I st. Silicotuberculosis. Pulmonary emphysema. RF of I st.
- E. Silicosis of I st. Pneumonia.

162. The patient, 33 years old, works with materials that contain asbestos, and there is an increased concentration of asbestos dust into air of working place. After 5 years of working dyspnea at small exercise, attacks of cough with hardly eliminated thick sputum, accompanied with pain in the chest, appeared. At the inspection: cyanosis of the face and lips, barrel-shaped thorax. In lungs: boxing sound on percussion, a big amount of dry and moist rales, pleural

friction noise, mobility of lower lung edges is limited. The radiography: vascular and bronchial picture is sharply enhanced and deformed; transparency of lung fields is diffuse increased; pleurodiaphragmatic comissures, interlobar right pleura is thicken; lung roots are expanded. The previous diagnosis:

- A. Chronic obstructive bronchitis
- B. Pleuropneumonia
- C. Asbestosis, adhesive pleurisy
- D. Pulmonary tuberculosis
- E. Right lung tumor

163. What are the main features that characterize the remodeling of bronchi at bronchial asthma?

- A. Increased vascularization (angiogenesis)
- B. Damage of epithelium
- C. Hyperplasia of bronchial smooth musculature
- D. Thickening of basal membrane
- E. All answers are true

164. The worker of the filter production factory with diagnosed asbestosis of I stage is rationally employed, has annually prophylactic treatment, feels good. After 5 years, suddenly starts to complain on expressed increase of breathlessness, appearance of bloody sputum, weightloss, fever. At the lung X-ray: atelectasis of the right lung middle lobe. What complication developed at the patient?

- A. Central right lung tumor
- B. Fibrous-cavernous pulmonary tuberculosis
- C. Right lung abscess
- D. Pneumonia, severe course (IV group)
- E. Exacerbation of chronic bronchitis with bronchiectasis

165. The patient N., 38 years old, is suffering on bronchial asthma for 6 years. At visiting an allergologist the patient is offered to fill in the test of bronchial

asthma control, where he gets 17 points. What is the degree of bronchial asthma control?

- A. Complete control of bronchial asthma
- B. Partial control of bronchial asthma
- C. Incontrol course of bronchial asthma
- D. Exacerbation of bronchial asthma
- E. That number of points is not enough for evaluation of bronchial asthma control

166. The patient, 36 years old, complains on significant breathlessness in rest, heavy sense in the chest. He links the disease with the flu two weeks ago. At the inspection: forced position-sitting with front leaning; puffy face, cyanosis, neck veins are swelling; heart bounds are displaced in both sides, heart tones are deaf, heart rate 106 per minute, AP 100/60. In blood: blood sedimentation 42 mm/hr. At the ECG: low voltage. At the lung X-ray: trapezial heart shadow, signs of stagnation in lungs. What is the most credible diagnosis?

- A. Acute pericarditis
- B. Viral myocarditis
- C. Dilatational cardiomyopathy
- D. Coronary heart disease
- E. Rheumatic heart disease

167. The patient, 52 years old, is hospitalized in the hospital in a very severe state. At the inspection: adynamia, forced position, skin is covered with cold sweat, expressed cyanosis of the face, swelling of neck veins; mixed dyspnea, RR 36 for 1 min., filiform arrhythmic pulse, 118 for 1 minute, AP 80/55; liver is increased +5,0 sm, painful on palpation. At the lung X-ray: spherical heart configuration, signs of stagnation in lungs. What treatment should be used?

- A. Pericardiocentesis
- B. Appointment of glucocorticosteroids
- C. Appointment of diuretics
- D. Pericardectomy
- E. Appointment of cardiac glycosides

168. The patient, 52 years old, complained on cough for 12 years, during the last five years began to notice breathlessness during exercise. A month ago cough with pyoptysis increased. At the inspection: edema of the legs, warm diffuse cyanosis, dyspnea in rest. RR 32 for 1 minute, body temperature 37,5C, heart bounds are displaced to the right, accent of II tone on pulmonary artery, liver +2,0 sm. What is the tactics?

- A. Outpatient treatment
- B. Physiotherapy
- C. Hospital treatment
- D. Extracorporeal methods of treatment
- E. Spa treatment

169. The patient, 60 years old, after gynecological operation is transferred to cardiological unit with the diagnosis: pulmonary embolism. In the anamnesis: ulcer of stomach. At the inspection: skin is pale. HR 88 for 1 minute, RR 20 for 1 minute, AP 90/60, heart tones are reduced, accent of II tone on pulmonary artery. In lungs: reduced breathing, more in the right lower areas. What is the tactics?

- A. Appointment of aspirin
- B. Appointment of prednisolone
- C. Appointment varfarin
- D. Appointment fraxiparin
- E. Appointment of furosemide

170. At the patient, 50 years old, after painting of windows at home, attack of dyspnea started, which did not pass after taking sympathomimetics within 3 days. In the anamnesis: bronchial asthma. During the last year there were 3 attacks that passed after taking salbutamol. At the inspection: HR 120 for 1 minute, AP 155/80, edema of the lower limbs, shallow breathing, RR 36 for 1 minute, dry whistling rales over the lungs, heart bounds are shifted to the right, liver +4,0 sm. What caused the heart failure?

- A. Coronary heart disease
- B. Hypertension

- C. Pulmonary embolism
- D. COPD
- E. Acute pulmonary heart

171. The patient P., 54 years old, complains on shortness of breath, cough, palpitation. He is smoking for 30 years. At the inspection: warm diffuse cyanosis, swelling of neck veins, flat chest, reduced breathing, RR 28 for 1 minute, accent of II tone on pulmonary artery, heart rate 90 per 1 minute, AP 150/80, liver is +2,0 sm. On the ECG: P "pulmonale" and signs of right ventricular hypertrophy. What disease is the cause of developed complication?

- A. Obesity
- B. Primary pulmonary hypertension
- C. Hypertension
- D. COPD
- E. Bronchial asthma

172. The patient, 56 years old, is suffering on bronchial asthma over 25 years. At asthma attacks he is using beta 2-agonists of short action. What complication is not connected with overdose of beta 2-agonists?

- A. Muscle tremor
- B. Increase of blood pressure
- C. Syndrome of "rebound"
- D. Tachycardia
- E. Sleepiness

173. Topographic percussion of lungs in a patient who got a serious job-related barotrauma revealed that the lower lungs borders were located one rib below normal, there was a significant increase in both lungs height and Kronig's isthmus. What disease should be suspected in the first place?

- A. Pulmonary emphysema
- B. Exudative pleuritis
- C. Chronic bronchitis
- D. Bronchial asthma

## E. Pneumothorax

174. A 47-year-old patient complains about cough with purulent sputum, pain in the lower part of the left chest, periodical body temperature rise. She has been suffering from these presentations for about 10 years. Objectively: "drumstick" distal phalanges. What examination would be the most informative for making a diagnosis?

- A. Survey radiograph of lungs
- B. Pleural puncture
- C. Bacteriological analysis of sputum
- D. Bronchography
- E. Bronchoscopy

175. 4 days ago a 32-year-old patient caught a cold: he presented with sore throat, fatigue. The next morning he felt worse, developed dry cough, body temperature rose up to 38,2°C, there appeared muco-purulent expectoration. Percussion revealed vesicular resonance over lungs, vesicular breathing weakened below the angle of the right scapula, fine sonorous and sibilant wheezes. What is the most likely diagnosis?

- A. Pulmonary carcinoma
- B. Pulmonary gangrene
- C. Focal right-sided pneumonia
- D. Bronchial asthma
- E. Acute bronchitis

176. A 22-year-old patient is a clerk. His working day runs in a conditioned room. In summer he was taken by an acute disease with the following symptoms: fever, dyspnea, dry cough, pleural pain, myalgia, arthralgia. Objectively: moist rales on the right, pleural friction rub. X-ray picture showed infiltration of the inferior lobe. In blood: WBC -  $11 \cdot 10^9/l$ , stab neutrophils - 6%, segmented neutrophils - 70%, lymphocytes - 8%, ESR - 42 mm/h. What is the etiological factor of pneumonia?

- A. Mycoplasma

- B. Streptococcus
- C. Staphylococcus
- D. Legionella
- E. Pneumococcus

177. A 32-year-old patient has developed an acute condition after hypothermia: temperature - 40°C, cough with 200 ml of sputum per day. The sputum is purulent, foul-smelling. To the right of the lower lobe the mixed moist rales can be auscultated. Blood test results: WBCs -  $18,0 \cdot 10^9/l$ , ESR - 45 mm/h. Radiographically: in the lower lobe of the right lung there is a thick-walled cavity up to 6 cm in diameter with a high horizontal level. What is the most likely diagnosis?

- A. Fibro-cavernous pulmonary tuberculosis
- B. Lung cyst
- C. Decomposing lung carcinoma
- D. Infiltrative pulmonary tuberculosis
- E. Lung abscess

178. A 40-year-old patient complains of fever up to 39°C, cough with sputum and blood admixtures, dyspnea, weakness, herpetic rash on the lips. Objectively: respiration rate - 32/min. Under the shoulder blade on the right the increased vocal fremitus and dullness of percussion sound were revealed. Auscultation revealed bronchial respiration. Blood count: WBCs -  $14 \cdot 10^9/l$ , ESR - 35 mm/h. What is the provisional diagnosis?

- A. Right-sided croupous pneumonia
- B. Focal right-sided pneumonia
- C. Cavernous tuberculosis of the right lung
- D. Lung cancer
- E. Exudative pleuritis

179. A 49-year-old patient complains of dyspnea, cough. There are no sputum discharges. He has repeatedly used salbutamol and intal but with no effect. Objectively: he is only able to sit while leaning on the table. Cyanosis of face, acrocyanosis are present. Breathing is shallow, laboured, in some parts it

cannot be auscultated; there are diffuse rales, expiration is significantly prolonged. Heart sounds are muffled, tachycardia is present. Ps - 112/min, AP- 110/70 mm Hg. Liver is located near the costal arch. There are no peripheral edemata. What is your provisional diagnosis?

- A. Cardiac asthma
- B. Status asthmaticus
- C. Chronic obstructive bronchitis
- D. Bronchiale asthma, moderate gravity
- E. Foreign object aspiration

180. A 36-year-old female has a 7-year history of pollen allergy. Over the last 2 years in August and September (during ragweed flowering), the patient has had 2-3 asthma attacks that could be treated with one dose of salbutamol. Objectively: body temperature - 36,5°C, respiratory rate - 18/min, Ps- 78/min, AP-115/70 mm Hg. There is vesicular breathing above the lungs. Cardiac sounds are sonorous, of regular rhythm. What drug would be most effective to prevent asthma attacks during the critical season for the patient?

- A. Intalum inhalation
- B. Berotec inhalation
- C. Atrovent inhalation
- D. Suprastin administration
- E. Theopecum administration

181. A 65-year-old male patient complains of dyspnea that is getting worse with exertion, morning cough with expectoration of mucous sputum. For about 15 years, he has been subject to regular medical check-up for chronic bronchitis. The patient takes berodual (16 inhaled doses per day). Objectively: body temperature is 36,8°C, RR- 24/min, Ps- 110/min, AP- 145/90 mm Hg. Auscultation reveals a lot of dry rales above the lungs. FEV1- 65%. What is the optimal tactics of further management of the patient?

- A. To include short-acting  $\beta_2$ -agonists in the therapy
- B. To administer inhalation corticosteroids
- C. To administer antibiotics

- D. To administer theophylline
- E. To increase the daily dose of berodual

182. A 45-year-old male patient with acute abscess of the left lung has suddenly developed acute chest pain and dyspnea while coughing, tachycardia has increased. The control Ro-gram shows left lung collapse, the air in the left pleural cavity and a horizontal fluid level. What is the mechanism of this complication?

- A. Inflammation spread to the visceral pleura
- B. Atelectasis of the left lung
- C. Acute cardiovascular insufficiency
- D. Abscess burst into the pleural cavity
- E. Bullae rupture of the left lung

183. A 21-year-old female patient has been hospitalized on an emergency basis because of severe dyspnea, pain in the left side of chest. Body temperature is 38,8°C. The condition developed three days ago. Respiratory rate is 42/min, auscultation reveals shallow breathing. There is percussive dullness on the right starting from the middle of the blade, breath sounds cannot be heard. The left border of heart is 3 cm displaced outwards. Embryocardia is present, HR is 110/min. The right hypochondrium is painful on palpation. What urgent therapeutic measures should be taken in this situation?

- A. Injection of cardiac glycosides
- B. Transferring the patient to the thoracic surgery department
- C. Emergency puncture of the pleural cavity
- D. Administration of penicillin antibiotics
- E. Injection of Lasix

184. A 42-year-old male patient has been delivered to a hospital in a grave condition with dyspnea, cough with expectoration of purulent sputum, fever up to 39, 5oC. The first symptoms appeared 3 weeks ago. Two weeks ago, a local therapist diagnosed him with acute right-sided pneumonia. Over the last 3 days, the patient's condition deteriorated: there was a progress of dyspnea, weakness, lack of appetite. Chest radiography confirms a rounded shadow in

the lower lobe of the right lung with a horizontal fluid level, the right sinus is not clearly visualized. What is the most likely diagnosis?

- A. Pleural effusion
- B. Abscess of the right lung
- C. Acute pleuropneumonia
- D. Right pulmonary empyema
- E. Atelectasis of the right lung

185. A 40-year-old woman has been hospitalized for attacks of asphyxia, cough with phlegm. She has a 4-year history of the disease. The first attack of asphyxia occurred during her stay in the countryside. Further attacks occurred while cleaning the room. After 3 days of inpatient treatment the patient's condition has significantly improved. What is the most likely etiological factor?

- A. Household allergens
- B. Pollen
- C. Infectious
- D. Chemicals
- E. Psychogenic

186. A 26-year-old male patient complains of piercing pain during breathing, cough, dyspnea. Objectively:  $t_{37,30C}$ , respiration rate is 19/min, heart rate is 92/min; BP is 120/80 mm Hg. Vesicular respiration is observed. In the inferolateral parts of chest auscultation in both inspiration and expiration phase revealed noise that was getting stronger at phonendoscope pressing and could be still heard after cough. ECG showed no pathological changes. What is the most likely diagnosis?

- A. Acute pleuritis
- B. Intercostal neuralgia
- C. Subcutaneous emphysema
- D. Spontaneous pneumothorax
- E. Pericarditis sicca

187. A 47-year-old female patient complains of cough with purulent sputum, pain in the lower left chest, periodical body temperature rise. She has been suffering from this condition for about 10 years. Objectively: "drumstick" distal phalanges. What examination would be the most informative for making a diagnosis?

- A. Bacteriological analysis of sputum
- B. Bronchography
- C. Bronchoscopy
- D. Survey radiograph of lungs
- E. Pleural puncture

188. A 57-year-old patient complains of dyspnea at rest. The patient presents with orthopnea, acrocyanosis, bulging cervical veins. On percussion: dull sound over the lower lung segments; on auscultation: no respiratory murmurs. Heart rate is 92/min. Right-sided cardiac dilatation is observed. The liver is enlarged by 7 cm. Shins are swollen. Pleural effusion is suspected. What indicator would confirm the presence of transudate in this case?

- A. Total protein content in the pleural fluid above 30 g/l
- B. Presence of atypical cells
- C. Total protein content in the pleural fluid below 25 g/l
- D. Specific gravity exceeding 1015
- E. Positive Rivalta's test

189. A 19-year-old student was urgently hospitalized due to marked dyspnea and chest pain on the left. Her body temperature is 38.8°C. She has been presenting with these signs for 3 days. Respiratory rate is 42/min., shallow. Percussion sound is dull to the left from the center of the scapula, no respiration can be auscultated. The left heart border is displaced outwards by 3 cm. Embryocardia and heart rate of 110/min are observed. Palpation of the right subcostal area is painful. What urgent measures should be taken in this case?

- A. Prescription of penicillin antibiotics
- B. Urgent thoracocentesis
- C. Administration of furosemide

- D. Administration of cardiac glycosides
- E. Referral into thoracic surgery unit

190. A 23-year-old patient had taken 1 g of aspirin to treat acute respiratory infection. After that he developed an asthmatic fit with labored expiration that was arrested by introduction of aminophylline. The patient's medical history is not burdened with allergies. The patient has undergone two surgeries for nasal polyposis in the past. What diagnosis is most likely?

- A. Aspirin-induced asthma
- B. Atopic bronchial asthma
- C. Infectious allergic bronchial asthma
- D. Exercise-induced asthma
- E. Symptomatic bronchospasm

191. A 37-year-old worker during a fire ended up in the area of high CO concentration. He was delivered to a hospital in unconscious state. Objectively: the skin of his face and hands is crimson. Respiration rate is 20/min. ECG: alterations specific for hypoxic myocardium. Hourly diuresis is 40 ml. Blood test: erythrocytes -  $4.5 \cdot 10^{12}/L$ , Hb - 136 g/L, color index - 0.9, ESR - 3 mm/hour, carboxyhemoglobin - 5%. What criterion allows determining the severity of the patient's condition?

- A. Carboxyhemoglobin concentration
- B. Respiratory disorders
- C. ECG results
- D. Extent of trophic disorders
- E. Development of chronic renal failure

192. During physical exertion a man suddenly developed acute chest pain on the right and dyspnea. Objectively he assumes forced half-sitting position in the bed, presents with diffuse cyanosis, resting tachypnea of 38/min., the right side of the thorax is enlarged and does not participate in the respiratory process; percussion on the right reveals tympanic resonance and absence of respiration. What is the most likely diagnosis in this case?

- A. Lobar pneumonia
- B. Hemothorax
- C. Spontaneous pneumothorax
- D. Pulmonary embolism
- E. Acute pleurisy

193. 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 -  $15,000/1$ , 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. Infiltrative tuberculosis
- B. Pneumonia complicated by an abscess
- C. Peripheral pulmonary cancer
- D. Cystic echinococcosis
- E. Pulmonary cyst

194. A 25-year-old woman complains of fatigue, dizziness, hemorrhagic rashes on the skin. She has been presenting with these signs for a month. Blood test: erythrocytes -  $1.0 \times 10^{12}/L$ , Hb- 37 g/L, color index - 1.1, leukocytes -  $1.2 \times 10^9/L$ , platelets -  $42 \times 10^9/L$ . What analysis would be the most advisable for diagnosis-making in this case?

- A. Coagulation studies
- B. Splenic biopsy
- C. Liver biopsy
- D. Sternal puncture (bone marrow biopsy)
- E. US of the gastrointestinal tract

195. A 62-year-old patient has been hospitalized with complaints of pain in the thorax on the right during breathing, dyspnea, and dry cough. Ten days ago he slipped and fell hitting his right side. On examination: the patient lies on the

left side. The right side of the thorax lags during breathing. On the right there are crepitation and pain in the III-IV ribs. Dullness of percussion sound and sharply diminished breath sounds can be observed. On X-ray: signs of exudate, fracture of the III-IV ribs. On pleurocentesis: blood is detected. Choose the further tactics:

- A. Apply a fixation bandage to the rib cage
- B. Prescribe conservative therapy
- C. Perform repeated pleural taps
- D. Transfer to a thoracic surgery department
- E. Refer to a traumatologist

196. A woman with atopic bronchial asthma was found to have one allergen to dog hair ++++. Carpets were removed from the apartment, the apartment was renovated, and air conditioner was installed. However, recurrent asphyxia attacks still occur every night, despite the patient undergoing pathogenetic therapy. What long-term treatment tactics can help this patient to decrease her sensitivity to the allergen?

- A. Buteyko breathing technique
- B. Continuation of prior treatment
- C. Antihistamine therapy
- D. Specific hyposensitization
- E. Referral for speleotherapy

197. A 43-year-old man, a coal-face worker with 15-year-long record of work, complains of cough, thoracic pain, and dyspnea. The cough is mild, usually dry, occurs mostly in the morning. The pain is localized in the interscapular region and aggravates during a deep intake of breath. Dyspnea occurs during physical exertion. Vesicular respiration in the lungs is weakened. Heart sounds are rhythmic, heart rate is 86/min., blood pressure is 135/80 mm Hg. The abdomen is soft and painless. X-ray shows micronodular pulmonary fibrosis. Make the provisional diagnosis:

- A. Berylliosis
- B. Byssinosis

- C. Siderosis
- D. Carboconiosis
- E. Metal pneumoconiosis

198. A 72-year-old man complains of lower extremity edema, sensation of heaviness in the right subcostal area, dyspnea at rest. For over 25 years he has been suffering from COPD. Objectively: orthopnea, jugular venous distention, diffuse cyanosis, acrocyanosis. Barrel chest is observed, on percussion there is a vesiculotympanic (bandbox) resonance, sharply weakened vesicular respiration on both sides, moist crepitant crackles in the lower segments of the lungs. Heart sounds are weakened, the II heart sound is accentuated over the pulmonary artery. The liver is +3 cm. What complicated the clinical course of COPD in this patient?

- A. Chronic pulmonary heart
- B. Pulmonary embolism
- C. Acute left ventricular failure
- D. Diffuse pneumosclerosis
- E. Community-acquired pneumonia

199. A 72-year-old man with pneumonia complains of marked dyspnea, chest pain, severe cough with expectoration, to is 39.5-40oC, no urination for a whole day. Objectively the patient is conscious. Respiratory rate is 36/min. Over the right lower pulmonary lobe percussion sound is dull; on auscultation there is bronchial respiration and numerous moist crackles. Blood pressure is 80/60 mm Hg. Heart rate is 120/min. Heart sounds are muffled, there is tachycardia. What tactics should the family doctor choose in the management of this patient?

- A. Outpatient treatment
- B. Treatment in the day patient facility
- C. Treatment in the day patient facility
- D. Hospitalization into the pulmonology unit
- E. Hospitalization into the neurology unit

200. 64. A 45-year-old man with thrombophlebitis of the deep veins in his legs

suddenly after physical exertion developed sharp pain in his thorax on the right, dyspnea, and hemoptysis. Objectively his condition is severe; he presents with acrocyanosis, shortening of pulmonary percussion sound on the right, and weakened respiration. Respiration is 30/min., blood pressure is 110/80 mm Hg. ECG shows sinus tachycardia, heart rate is 120/min., electrical axis of the heart deviates to the right, SI-QIII. What is the most likely diagnosis?

- A. Left-sided pulmonary cystic dysplasia
- B. Pulmonary embolism
- C. Community-acquired right-sided pneumonia
- D. Right-sided exudative pleurisy
- E. Cancer of the right lung

## Standarts of true answers

No of test task	True answer						
1	A	51	E	101	D	151	C
2	B	52	D	102	E	152	D
3	D	53	B	103	B	153	C
4	E	54	D	104	D	154	D
5	D	55	A	105	A	155	A
6	E	56	C	106	C	156	E
7	B	57	D	107	B	157	D
8	D	58	E	108	E	158	A
9	A	59	C	109	A	159	E
10	C	60	D	110	E	160	C
11	B	61	A	111	C	161	A
12	D	62	E	112	D	162	C
13	E	63	C	113	A	163	A
14	E	64	E	114	C	164	A
15	C	65	C	115	E	165	C
16	C	66	A	116	E	166	A
17	D	67	B	117	D	167	A
18	A	68	A	118	E	168	C
19	C	69	D	119	C	169	D
20	D	70	E	120	A	170	E
21	E	71	B	121	B	171	D
22	C	72	C	122	A	172	E
23	A	73	B	123	D	173	A
24	B	74	E	124	E	174	D
25	A	75	A	125	B	175	C
26	D	76	D	126	C	176	D
27	E	77	B	127	A	177	E
28	B	78	C	128	B	178	A
29	C	79	B	129	B	179	B
30	A	80	C	130	D	180	A
31	B	81	B	131	A	181	B
32	B	82	E	132	C	182	D
33	E	83	A	133	D	183	C
34	A	84	A	134	B	184	B
35	C	85	C	135	C	185	A
36	B	86	C	136	D	186	A
37	C	87	B	137	C	187	B
38	D	88	A	138	B	188	C
39	C	89	B	139	E	189	B
40	B	90	D	140	A	190	A
41	E	91	A	141	A	191	A
42	A	92	A	142	C	192	C
43	B	93	D	143	E	193	B
44	C	94	E	144	C	194	D
45	D	95	A	145	D	195	D
46	C	96	A	146	A	196	D
47	B	97	E	147	C	197	D
48	A	98	A	148	D	198	A
49	B	99	D	149	C	199	D
50	D	100	E	150	A	200	B

## **Recommended literature**

### **Basic**

1. Kumar and Clark Clinical Medicine, 10th edition, 2020.
2. Harrison's Principles of Internal Medicine by Longo et al.: Volumes 1 and 2, 20th Edition, 2018.
3. Davidson's Principles and Practice of Medicine, 23d Edition. 2018. – 1440 p.
4. Murray and Nadel's Textbook of Respiratory Medicine, 6th Edition, 2016
5. Williams Textbook of Endocrinology, 14th Edition, 2019
6. Williams Hematology, 9th edition 2016.
7. Vizir V.A, Berezin A.E. Comprehence cliniucal nephrology (Task force for stu-dents). Kiev: Morion. 2014. 1056 p.

### **Additional**

8. USMLE Step 2 CK Lecture Notes 2017: Internal Medicine (Kaplan Test Prep). - 2016. - Published by Kaplan Medical. - 474 pages.
9. Kidney Disease; Improving Global Outcomes (KDIGO) Blood Pressure Work Group. KDIGO clinical practice guideline for the management of blood pressure in chronic kidney disease.Kidney Int Suppl. 2012; 2(5):337-414
10. NKF-DOQI and K/DOQI clinical guidelines for Chronic Kidney Disease [https://www.kidney.org/sites/default/files/docs/ckd\\_evaluation\\_classification\\_stratification.pdf](https://www.kidney.org/sites/default/files/docs/ckd_evaluation_classification_stratification.pdf)
11. The KDIGO practice guideline on acute kidney injury in the individual patient (2012) - <http://www.kidney-international.org>, <http://nephrology.kiev.ua>.