

МИНИСТЕРСТВО ЗДРАВООХРАНЕНИЯ РЕСПУБЛИКИ БЕЛАРУСЬ
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«ГРОДНЕНСКИЙ ГОСУДАРСТВЕННЫЙ МЕДИЦИНСКИЙ УНИВЕРСИТЕТ»

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ФТИЗИОПУЛЬМОЛОГИЯ

тесты для студентов факультета иностранных учащихся,
обучающихся на английском языке

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PHTHISIOPULMONOLOGY

Tests in English for the foreign students

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The tests include 175 questions, covering the main branches of phthisiopulmonology: etiology, pathogenesis, diagnostics, clinical picture, treatment and prophylaxis of tuberculosis. The tests are intended for the students of the Faculty of foreign students with the English language medium.

Ответственный за выпуск: первый проректор, доцент В.В.Воробьев

1. Optimal temperature conditions for active multiplying of *Mycobacterium tuberculosis* (MBT) are:

1. 20-25°C
2. 37-38°C
3. 42-45°C
4. 50-55°C

2. Temperature conditions in which MBT dies during 15 minutes exposure are:

1. -140°C
2. 0°C
3. +60°C
4. +100°C

3. The type of radiation, which kills MBT during an hour of exposure is:

1. Infra-red solar radiation
2. Ultra-violet solar radiation
3. Constant and alternating magnetic field
4. Radioactive radiation

4. The type of *Mycobacterium* which causes TB in humans most often is:

1. *M. tuberculosis*
2. *M. kansasii*
3. *M. avium*
4. *M. bovis*

5. The form of persistence of MBT in the human organism is:

1. *Mycobacterium tuberculosis*
2. L-forms of MBT
3. Nontuberculosis mycobacterium (atypical)
4. Granular forms

6. Mycobacteriosis is caused by:

1. *Mycobacterium* of BCG-strain.
2. Nontuberculosis Mycobacteria (atypical)
3. L-forms of MBT
4. *M. bovis*

7. Tuberculosis in humans is caused by:

1. *M. avium*
2. *M. kansasii*
3. *M. phlei*
4. *M. bovis*
5. *M. smegmatis*
6. *M. africanum*

2 right answers

8. Optimal period for the visible growth of MBT on solid culture medium of Löwenstein-Jensen is:

1. 2 - 3 days
2. 2 weeks
3. 1 month
4. 2,5 - 3 months

9. The method of the urgent laboratory detection of MBT available in any hospital is:

1. Flotation technique.
2. Bacterioscopy.
3. Cultural method.
4. Fluorescent bacterioscopy

10. Place methods of revealing MBT from the most to the least effective one:

1. Fluorescent bacterioscopy
2. Bacterioscopy.
3. PCR.
4. Flotation.
5. Cultural method.

11. The types of drug resistance of MBT:

1. Slow, fast.
2. Primary, acquired
3. Latent, current.
4. Inactive, active.

12. The important characteristic of MBT is:

1. Spore formation.
2. Acid resistance
3. Mobility.
4. Anaerobe.

13. Mycobacterium tuberculosis is resistant to:

1. Low temperature.
 2. High temperature (100°C).
 3. Ultraviolet radiation.
 4. Chlorine-containing solutions.
 5. Water.
- 2 right answers

14. In case of the presence of drug resistance the clinical picture of TB is the following:

1. Improvement (virulence decreases).
2. Prognosis becomes significantly worse.
3. Clinical picture does not change.
4. In some cases-improves, in other cases-becomes worse.

15. The main way of the TB transmission in humans is:

1. Intrauterine
2. Alimentary
3. Air-born (aerogenic)
4. Transdermal infection (contact)

16. Vaccine BCG was discovered by:

1. Koch
2. Kalmette.
3. Bering.
4. Erlich.

17. Mycobacterium tuberculosis was discovered by:

1. Paster.
2. Virchov.
3. Willman.
4. Koch.

18. Tuberculin was first obtained by:

1. Laenneck.
2. Koch.
3. Kalmette.
4. Mechnikov.

19. Giant cells in the TB tubercle were described by:

1. Virchov.
2. Pirogov.
3. Abrikosov.
4. Ghon.

20. What types of solutions are the best means for disinfection in TB?

1. Acids.
2. Alkaline solutions.
3. Chlorine-containing solutions.
4. Alcohol.

21. The method of smear staining for detection of MTB is known as:

1. Gram.
2. Ziehl-Neelsen.
3. Hematoxylin-Eosin.
4. Gimsa-Romanovsky.

22. The methods of increasing the concentration of MTB in specimens are:

1. Flotation.
2. Absorbtion.
3. Filtration.

4. Dehydration.
5. Sedimentation.
6. Polarization.

2 right answers

23. The forms of living of MBT in a healthy infected organism are:

1. Fast-growing.
2. Slow-multiplying.
3. Persistent
4. Dead.

24. Which growth medium is more often used for detecting MBT in pathological materials with bacteriological method of research?

1. Loevenstein-Yenson.
2. Gelberg.
3. Leffler.
4. Kitta-Tarotzi.

25. The source of TB infection of humans by alimentary route is:

1. TB-positive smear patients.
2. Domestic cats, dogs.
3. Cattle.
4. Rabbits
5. Pigs.
6. Poultry (domestic birds)

2 right answers

26. Check the following types of granuloma according its structure:

1. Tubercular granuloma
2. Sarcoidosis granuloma
1. Granuloma consists of the epithelioid cells with the giant cells of Pirogov –Langhans without necrosis.
2. Granuloma consists of the lymphoid cells and cells of Berezovsky –Shterenberg.
3. Granuloma consists of the epithelioid cells with the giant cells of Pirogov -Langhans and caseous necrosis in the center.
4. Connective-tissue nodes along small vessels.
5. Granuloma consists of the eosinophil cells

2 right answers

27. The cells, which phagocytize MBT in the respiratory tract and lungs:

1. T-lymphocytes
2. B-lymphocytes
3. neutrophils
4. macrophages

28. The delayed-type hypersensitivity belongs to the following type of reactions:

1. Humoral immunity
2. Nonspecific resistance
3. Cellular immunity

4. Productive inflammation.

29. The main method of MBT elimination in the cellular immunity is:

1. Antigen–antibody reaction
2. Phagocytosis
3. Destruction of MBT by mediators- interleukins
4. Influence of the factors of blood bactericidal activity on MBT.

30. The immunity in tuberculosis mainly is:

1. Cellular
2. Humoral
3. Nonspecific
4. Natural

31. The cellular immunity to TB in humans is controlled by:

1. B-lymphocytes
2. Neutrophils
3. Histiocytes
4. T-lymphocytes

32. The most characteristic cells of the tubercular granuloma are:

1. Fibroblasts
2. Histiocytes
3. Berezovsky-Shterenberg cells
4. Pirogov-Langhans cells

33. The pathomorphological reaction characteristic for the progression of the tubercular process is:

1. Dystrophy
2. Caseous necrosis
3. Atrophy of tissues
4. Productive inflammation

34. The features of the immunity in TB are:

1. Absolute
 2. Non-sterile
 3. Sterile
 4. Congenital
 5. Relative
 6. Nonspecific
- 2 right answers

35. The main protective reaction of the cellular immunity in TB is:

1. Antigen-antibody reaction
2. Elimination of Mycobacteria from the bronchi.
3. Phagocytosis
4. Complement action

36. The reactions of the cellular immunity in TB depend on the following cells:
1. B-lymphocytes
 2. Neutrophils
 3. Macrophages
 4. Eosinophils
 5. T-lymphocytes
 6. Mesothelial cells.
37. One of the major factors of the cellular antitubercular immunity is:
1. Delayed-type hypersensitivity
 2. Immediate-type hypersensitivity
 3. Cellular hyposensitivity
 4. Development of insensibility
38. The interaction between T-lymphocytes and macrophages is conducted by the means of:
1. Nerve endings
 2. Secretion of mediators
 3. Endothelial cells of small vessels
 4. Antibodies
39. The tubercular process by its morphological nature is:
1. Dystrophic
 2. Atrophic
 3. Inflammatory
 4. Tumorous
40. The major morphologic manifestations of active tuberculous process are:
- 1) Development of hyalinosi
 - 2) Occurrence of epithelial cell tubercles with necrosis
 - 3) Calcification
 - 4) Adipose degeneration
 - 5) Occurrence of the foci with caseous necrosis
 - 6) Occurrence and multiplication of atypical cells
- 2 right answers
41. The main method of X-ray diagnostics of pathological changes at pulmonological and phthisiology clinics is:
1. Fluorography
 2. Chest radiography in two projections (anterior-posterior and lateral position)
 3. Roentgenoscopy
 4. Tomography
42. What segment of the lungs is most commonly involved in secondary (postprimary) tuberculosis?
1. C₂
 2. C₃

3. C₅
4. C₈

43. X-ray parameters of large nodes shadows are:

1. up to 3mm
2. from 3 to 6mm
3. from 6 to 10mm
4. from 15 to 20mm

44. The intensity of the fresh recently formed nodes shadows in the lungs of tubercular etiology is:

1. High
2. Low
3. Various
4. Moderate

45. The X-ray signs of apparently active tuberculous process with progressive course are:

1. the low-intensity focus of opacity with the ring-shaped lucency inside and few foci around it.
2. A group of nodes shadows of low intensity and homogeneous structure in S₁ - S₂ of the right lung.
3. The focus of opacity of moderate intensity with the areas of density.
4. The large high-intensity focus of opacity with the areas of calcification

46. The most wide spread clinical form of pulmonary tuberculosis among “new cases” patients is:

1. Focal TB
2. Disseminated TB
3. Infiltrative TB
4. Tuberculoma

47. What form of pulmonary tuberculosis is an intermediate one between “fresh” and chronic forms?

1. cavernous TB
2. disseminated TB
3. infiltrative TB
4. fibro-cavernous TB

48. The X-ray method which allows precise diagnosing of the presence of the cavity in the lungs is:

1. Radiography
2. Roentgenoscopy
3. Tomography
4. Fluorography

49. X-ray features of the lung emphysema are:

1. Increased transparency
2. Decreased transparency
3. Diffuse opacity
4. Normal lung picture

50. Which method is used rarely at the present time?

1. X-ray
2. Roentgenoscopy
3. Computed tomography
4. Tomography

51. The pleural exudative fluid is characterized by the following level of protein:

1. 5 g/l
2. 12 g/l
3. 17 g/l
4. 25-30 g/l and more

52. The character of the pleural fluid of tubercular ethiology is:

1. Predominantly neutrophilic
2. Predominantly lymphocytic
3. Predominantly eosinophilic
4. Lacteal (chylous pleurisy)

53. Tubercular meningitis is characterized by the following pleocytosis:

1. More than 5000 cells in 1mm³ of the liquor
2. 2000-5000 cells
3. 200-400 cells
4. 5-10 cells

54. In tubercular meningitis the level of sugar and chlorides in the liquor is:

1. Increased
2. Only the level of sugar is increased
3. Not changed
4. Reduced

55. The picture of the cerebrospinal fluid characteristic for tubercular meningitis is:

1. Protein, chlorides and glucose are increased.
2. High cytosis (more than 1000 cells) of neutrophilic character; moderate increase of protein; turbid fluid.
3. Protein level is increased slightly; moderate lymphocytosis; glucose and chlorides are normal.
4. High concentration of protein; moderate cytosis, (200-400 cells and more) mainly lymphocytosis; glucose and chlorides level is reduced.

56. What percent is increased in bronchoalveolar lavage fluid in sarcoidosis?

1. Lymphocytes %.

2. Neutrophils %.
3. Eosinophils %.
4. Alveolar macrophages %.

57. Abnormalities characteristic of exudative pleurisy are:

1. Bronchial respiration.
2. Pleural friction rub.
3. Reduced respiration.
4. Heavy breathing.

58. The main method of detecting MBT recommended by WHO (DOTS system) is:

1. Chest X-ray.
2. Tuberculin skin test (Mantoux test).
3. Microscopic examination of the sputum smear.
4. Computed tomography.

59. Blood abnormalities in active tuberculosis process are:

1. Neutrophilic shift to left (increase of the amount of stab nuclear neutrophils).
2. Increase of lymphocytes amount.
3. Increase of eosinophils amount.
4. Basophils are found.

60. What does tuberculin contain?

1. Suspension of killed MBT
2. Suspension of killed Mycobacteria of BCG-vaccine
3. Special tubercular antigen
4. Glycerin-extracted filtrate of MBT culture

61. The dose of tuberculin in Mantoux test in children and teenagers:

1. 1 TU
2. 2 TU
3. 5 TU
4. 10 TU

62. Which method of tuberculin introduction is used in Mantoux test?

1. local, cutaneous
2. intradermal
3. subcutaneous
4. intravenous

63. What size of papula at Mantoux test with 2TU PPD-L is considered positive?

1. from 2mm
2. from 5mm
3. from 12mm
4. from 17mm

64. Which size of the papula at Mantoux test with 2TU PPD-L is considered hyperergic in children and teenagers?
1. from 12mm
 2. from 17mm
 3. from 21mm
 4. from 25mm
65. Which size of papula at Mantoux's test with 2TU PPD-L is considered hyperergic in adults?
1. 25mm
 2. 12mm
 3. 17mm
 4. 20mm
66. The results of Mantoux tests are evaluated:
1. in 12hrs
 2. in 24hrs
 3. in 48hrs
 4. in 72hrs
67. BCG revaccination is performed in case if Mantoux test's result is:
1. 17mm and more
 2. 12mm and more
 3. 5mm and more
 4. 0mm
68. Regular mass Tuberculin skin test in children and teenagers takes place:
1. once per 6 months
 2. every year
 3. once per 2 year
 4. once per 5 years
69. Starting from what age should be mass Tuberculin skin test done?
1. from 6 months
 2. from 1 year
 3. from 2 year
 4. from 5 year
70. The mass Tuberculin skin test is conducted up to the following age:
1. till 7 years
 2. till 12 years
 3. till 15 years
 4. till 18 years
71. The method of tuberculin introduction in Koch-test is:
1. local
 2. intradermal

3. subcutaneous
4. intramuscular

72. The aim of Koch-test is:

1. to determine the prevalence of TB in population
2. to determine “virage” (conversion of tuberculin skin test)
3. to reveal hyperepic reactions
4. to make diagnosis and differential diagnostics

73. What does BCG-vaccine contain?

1. cultures of pathogenic MBT
2. killed MBT
3. alive culture of *M. bovis* with reduced virulence
4. products of life activity of MBT

74. The method of administering BCG vaccine is:

1. peroral
2. local
3. intradermal
4. subcutaneous

75. What is the difference between BCG-M vaccine and BCG –vaccine?:

1. The virulence of BCG strain is considerably reduced
2. The vaccine dose is increased by two times
3. The vaccine dose is decreased by two times
4. There is no difference except a company’s mark

76. BCG- vaccine strain was obtained from:

1. *M.tuberculosis*
2. *M.bovis*
3. *M.avium*
4. *M.cansassii*

77. One dose of BCG- vaccine is:

1. 0.05mg
2. 0.1mg
3. 0.5mg
4. 1mg

78. Preventive antitubercular chemoprophylaxis is realized by:

1. streptomycin
2. isoniazide or ftivazide
3. rifampicin
4. ethambutol

79. The antitubercular chemoprophylaxis is required in case of the treatment by the following hormones:

- 1 insulin
- 2 anabolic steroids
- 3 glicocorticoides
- 4 thyroxin

80. The most important criterion determining the degree of epidemiological danger of the tubercular infection focus is:

1. Living conditions of the family
2. Material well-being of the family
3. Sanitary and cultural level of the family
4. The extent of MBT excretion in tuberculous patients

81. Prophylactic fluorography in pregnancy is performed:

1. During the first half of pregnancy
2. During the second half of pregnancy
3. Immediately after delivery
4. As generally accepted - one time during 2 years

82. If there is a suspicion of tuberculosis a pregnant woman should do the following examination:

1. chest X-ray
2. fluorography
3. only sputum analysis for MBT detection
4. examination is postponed until the delivery

83. High-risk group for tuberculosis includes patients with:

1. diabetes mellitus
2. ischemic heart disease
3. urolithiasis
4. chronic cholecystitis

84. Tuberculosis high-risk group includes:

1. sportsmen
2. patients with sexually transmitted diseases
3. persons abusing alcohol
4. police officers

85. The principal approach to the issue “abortion or maintaining the pregnancy in women with tuberculosis” is based on the following:

1. abortion is mandatory
2. abortion is recommended
3. a woman may bear a healthy child
4. abortion is completely excluded

86. The most effective combination of anti-TB drugs during the continuation phase of treatment by WHO's recommendation is:
- 1 – streptomycin+ ethambutol
 - 2 – isoniazid +rifampicin
 - 3-Para-aminosalicylic acid + thiacetazone
 - 4-pyrazinamide + ethionamide
87. What combination of anti-TB drugs is not applied?
- 1 –streptomycin+kanamycin
 - 2-rifampicin +isoniazid
 - 3-isoniazid +ethambutol
 - 4-ethambutol +pyrazinamide
88. What is the amount of antitubercular drugs that should be included to the combination for the initial phase of treatment of “new case” smear-positive patients with destruction in the lungs?
- 1 –not less than 2
 - 2- not less than 3
 - 3- not less than 4
 - 4- not less than 5
89. What is the amount of antitubercular drugs should be included to the combination for the initial treatment of patients with relapses of TB, chronic progressive TB in case of the assumption that there is drug resistance of MBT?
- 1-not less than 2
 - 2-not less than 3
 - 3-up to 4
 - 4-up to 5
90. The most effective combination of antibacterial drugs for tuberculosis patients from Category 1 at the initial phase of chemotherapy is:
1. isoniazid + ethambutol + thiacetazone
 2. isoniazid + rifampicin + pyrazinamide + ethambutol (streptomycin)
 3. rifampicin + streptomycin + ethambutol +Para-aminosalicylic acid
 4. isoniazid + streptomycin + ethambutol + ofloxacin
91. The most effective method of monitoring the intake of anti-TB drugs by tuberculous patients in the outpatient basis:
1. Patients receive the quantity of drugs required for the period not more than 5-7 days.
 2. The intake of antibacterial drugs by patients is controlled by his family.
 3. Laboratory control for the presence of the drug or its metabolites in urine.
 4. Administration of drugs in the presence of a medical worker.
92. The main side-effect of rifampicin:
1. affects the central nervous system

2. hepatotoxicity
3. affects the vision organ
4. causes hearing loss

93. The main side-effect of streptomycin:

1. affects the gastrointestinal tract
2. affects the peripheral nervous system
3. ototoxicity
4. causes skin itching

94. The main side-effect of isoniazid:

1. affects the peripheral nervous system/neuritis
2. ototoxicity
3. affects the kidney's function
4. affects the thyroid gland's function

95. The main side-effect of ethambutol:

1. affects the peripheral nervous system
2. affects the gastrointestinal tract
3. affects the vision organ
4. affects the kidney's function

96. What pathogenetic methods of therapy are recommended for patients with destructive forms of pulmonary tuberculosis?

1. desensibilization
2. reduction of fibrous changes
3. stimulation of reparative processes
4. anti-inflammatory treatment

97. What pathogenetic methods are recommended for patients with lung tuberculoma?

1. glucocorticoides
2. anabolic steroids
3. ultrasound
4. proteolytic enzymes

98. Glucocorticoides are indicated for patients with:

1. focal pulmonary tuberculosis in the phase of resolution and consolidation
2. cirrhotic pulmonary tuberculosis
3. lung tuberculoma
4. infiltrative pulmonary tuberculosis

99. Artificial pneumothorax with the medical purpose is useful in patients with:

1. focal pulmonary tuberculosis in the phase of infiltration
2. cavernous pulmonary tuberculosis
3. lung tuberculoma in the phase of destruction
4. fibro-cavernous pulmonary tuberculosis

100. The indication for using of pneumoperitoneum with the medical purpose is:

1. focal pulmonary tuberculosis in the phase of infiltration
2. subacute disseminated pulmonary tuberculosis in the phase of infiltration and destruction complicated by hemoptysis
3. cloud-shape infiltration in the upper lobe of the right lung without destruction
4. fibro-cavernous pulmonary tuberculosis in S1-2 of the left lung

101. Indications to the conducting of the lung resection in TB patients are:

1. infiltrative pulmonary tuberculosis in S2 of the right lung in the phase of destruction and dissemination
2. subacute disseminated pulmonary tuberculosis in the phase of destruction
3. cirrhotic pulmonary tuberculosis of the upper lobe in the right lung
4. large lung tuberculoma in S1 of the right lung in the phase of destruction

102. The most common complaints of patients with pulmonary tuberculosis are:

1. dry hacking cough of one week duration
2. long-standing gradually intensifying cough with small quantity of sputum
3. cough with large quantity of sputum in the morning when getting up
4. relatively rare cough during many years with easily discharged mucopurulent sputum

103. What method is the most effective one in detecting **minor** forms of bronchoadenitis?

1. Chest X-ray in “anterior- posterior” projection
2. Chest X-ray in a lateral projection
3. Pinpoint (aiming) X-ray
4. Tomography through the lung’s roots or CT scan

104. What clinical form of TB in children and adolescents is referred to primary TB?

1. Focal pulmonary TB
2. TB of intrathoracic lymphatic nodes
3. Lung tuberculoma
4. Infiltrative pulmonary TB

105. Which X-ray method is the most informative one for diagnosis of intrathoracic lymphadenopathies?

1. Chest X-ray in “anterior- posterior” projection
2. Bronchography
3. Median tomography through the lung’s roots or CT scan
4. Pinpoint (aiming) X-ray

106. What complication of TB of intrathoracic lymphatic nodes is most often met in children?

1. Pulmonary hemorrhage
2. Formation of cavity
3. Atelectasis
4. Cardio-pulmonary failure

107. What groups of peripheral lymphatic nodes are most often affected during TB in children and adolescents?

1. Infraclavicular
2. Inguinal
3. Cervical
4. Cubital

108. The most informative method of investigation which helps to verify the etiology of peripheral lymphadenitis is:

1. X-ray
2. Bacteriologic
3. Immunologic
4. Histologic/biopsy

109. A possible complication of TB of peripheral lymphatic nodes is:

1. fistula
2. phlegmon
3. bleeding
4. sepsis

110. The characteristic complication of primary tuberculous complex is:

1. atelectasis
2. formation of cavity
3. TB of bronchus
4. spontaneous pneumothorax

111. When does the microfocal dissemination appear on a chest X-ray image in a patient with miliary pulmonary TB?

1. on the 1st day of acute clinical manifestations
2. on the 3rd-4th day
3. on the 8th-10th day
4. in one month

112. Which method is the main one for diagnosing the miliary pulmonary TB?

1. Polypositional roentgenoscopy
2. Chest X-ray in 3 projections/anterior-posterior and laterals/
3. Tomography
4. Bronchoscopy

113. Radiographic features of miliary pulmonary TB are:

1. multiple low-intensity foci of various sizes in both lungs with some of them conjunct into large foci with zones of clarification.
2. multiple low-intensity small foci on all pulmonary fields of both lungs; the signs of pulmonary vessels are not defined.
3. multiple large foci of high intensity with precise contours are localized in middle and lower parts of both lungs; apices are without any changes.

4. nodes shadows of different intensity and moderate lung fibrosis are determined in the upper parts of both lungs.

114. The characteristic clinical symptoms of miliary pulmonary TB are:

1. gradual onset, body temperature becomes stable at 39-40°C, cough and dyspnea are absent
2. acute onset, body temperature about 40°C, rigors, in several days cough appears with a large quantity of sputum
3. acute onset, morning temperature is subfebrile, in the evening - 39-40°C, strong sweating at night, expressed dyspnea, slight cough
4. acute onset, subfebrile body temperature, strong paroxysmal cough with painful sensation in the chest

115. The radiological outcome of pathomorphological changes in miliary pulmonary TB in case of its early diagnosis and long-term intensive chemotherapy is:

1. partial resolution and consolidation of foci
2. complete resolution of foci without visible residual changes
3. formation of multiple small calcinated nodes
4. formation of diffuse pneumosclerosis with dense focal shadows

116. The pathogenesis of miliary and disseminated pulmonary TB is often associated with:

1. bronchogenic dissemination
2. lymphatogenic-hematogenic dissemination
3. contact way of spreading
4. sputogenic (per sputum) dissemination

117. The radiologic picture of subacute disseminated pulmonary TB:

1. multiple polymorphic foci of various intensity with zones of clarification on the pneumo-fibrosis background in the upper segments of both lungs
2. multiple small foci of high intensity without destruction in both lungs are in the middle-lower parts; roots are consolidated.
3. multiple low-intensity foci of various sizes in the upper parts of both lungs with thin-walled cavities
4. multiple low-intensity foci of various sizes in the subcortical zones of the middle parts of both lungs without destruction; roots from both sides are markedly enlarged due to the increased bronchopulmonary lymph nodes.

118. Radiological signs of chronic disseminated pulmonary tuberculosis are:

1. multiple fine low-intensity foci in both lungs without destructions
2. multiple foci of various sizes and intensity with the presence of cavities and with fibrous-sclerous changes in the upper segments of both lungs
3. multiple foci of infiltration in both lungs with indistinct contours
4. multiple small intensive foci in the middle-lower parts of both lungs; diffuse pneumosclerosis. Apices are free.

119. The characteristic X-ray sign of subacute disseminated pulmonary tuberculosis is:

1. the presence of a thick-walled cavity with irregular contours in the middle part of the lung
2. the presence of some large focal shadows up to 3-4cm in size
3. the presence of a thin-walled "stamped" cavity in the upper lobes
4. narrowing of one lung's field, the mediastinum is dislocated towards this lung

120. The main method in diagnosing of tuberculous meningitis is:

1. cerebrospinal puncture with laboratory research of fluid, with MBT detection
3. clinical methods
3. repeated examinations of sputum for MBT
4. the data of the neurologic status

121. The type of cerebrospinal fluid characteristic for tuberculous meningitis is:

1. turbid
2. hemorrhagic
3. transparent
4. transparent rarely with xanthochromia

122. The onset typical for tuberculous meningitis is:

1. acute
2. immediate
3. gradual with prodrome
4. the onset and course with few symptoms

123. What method of introduction of antituberculous drugs is preferable for the treatment of patients with tuberculous meningitis?

1. endolumbal
2. peroral
3. inhalation
4. intravenous and intramuscular

124. The main method of diagnostics of focal pulmonary tuberculosis is:

1. X-ray
2. sputum microscopy for MBT
3. bronchoscopy with biopsy
4. computer tomography

125. The most typical clinical pattern in focal pulmonary tuberculosis is:

1. expressed weakness, fatigue, long non-productive cough
2. clinical symptoms of the disease are absent or are not expressed
3. cough with purulent sputum, dyspnea
4. dry cough, hemoptysis, chest pain

126. The most frequent outcome of focal pulmonary tuberculosis is:

1. Partial resolution and consolidation of foci
2. full resolution
3. formation of lung tuberculoma

4. formation of the limited cirrhosis

127. The findings of chest examination in focal pulmonary tuberculosis are:

1. barrel-shaped thorax, the apices are swollen and convex in the supraclavicular area
2. the chest without any obvious pathology
3. the chest is asymmetric, one side is lagging in respiratory movements
4. one side is lagging in respiratory movements, intercostals spaces are smooth on that side

128. The character of X-ray pattern in focal pulmonary tuberculosis:

1. foci in the upper lobes of the lung
2. multiple foci in the upper and middle parts of both lungs
3. a zone of induration of pulmonary tissue with dislocation of the trachea
4. single nodes shadows in S1-S2 from one or both sides

129. The characteristic features of pulmonary tuberculosis in the phase of destruction are:

1. hyperergic reaction of Mantoux test
2. periodical pulmonary hemorrhage
3. MBT detection in sputum
4. the absence of positive effect after antiinflammatory treatment

130. The general state of the patient with caseous pneumonia is:

1. mild
2. moderate
3. severe, with expressed intoxication
4. rather mild, slight weakness and sweating

131. The data of the auscultation in caseous pneumonia are:

1. isolated dry rales over the involved part of the lung
2. isolated dry and small bubbling rales
3. profuse catarrhal phenomena in the projection of the affected lung
4. breathing is vesicular without the catarrhal phenomena

132. The radiological data of caseous pneumonia are:

1. fused conglomeratic formations with a fibrous degeneration of pulmonary tissue
2. the solitary cavity with a wide and irregular inflammatory zone, connected with the changed lung's root
3. multiple cavities of destruction, fused foci of irregular shape with dim contours, foci of dissemination in both lungs
4. deformation of the pulmonary pattern in damaged zones, enlargement of the lung's root due to reactive adenitis

133. The lung tuberculoma is most often formed from:

- 1- disseminated pulmonary tuberculosis
2. focal pulmonary tuberculosis
3. infiltrative pulmonary tuberculosis
4. cavernous pulmonary tuberculosis

134. Radiological signs and localization characteristic of lung tuberculoma are:

1. the round shadow with sharp contours in the third segment / S 3/
2. the intensive homogenic round focus with irregular contours in the low lobe of the lung / S 8/
3. the round intensive non-homogenic focus with the presence of excentric destruction in S 2. The nodes shadows are revealed around it.
4. the round homogenic shadow in the root's region / S 5/

135. The most typical clinical picture of lung tuberculoma is:

1. gradual onset with a rising fever, cough with sputum
2. the absence of clinical symptoms
3. expressed weakness, sweating, moderate dry cough, subfebrile fever
4. acute onset, headache, poor appetite, cough, temperature up to 38°C

136. What method is preferable in treatment of a big lung tuberculoma with destruction?

1. intensive polychemotherapy
2. polychemotherapy and other pathogenetic agents
3. resection of the damaged part of the lung with subsequent chemotherapy
4. collapseotherapy with simultaneous polychemotherapy

137. Cavernous pulmonary tuberculosis most often develops from:

1. focal pulmonary tuberculosis
2. infiltrative pulmonary tuberculosis with destruction
3. fibrous-cavernous pulmonary tuberculosis
4. disseminated pulmonary tuberculosis

138. Name the main path of infection's spreading from the cavity during the progressive course of tuberculosis:

1. lymphogenous
2. bronchogenous
3. hematogenic
4. contact

139. X-ray pattern which is more characteristic of cavernous pulmonary tuberculosis:

1. the presence of thin-walled cavities with numerous nodes shadows from both sides
2. a thick-walled cavity with fibrous deformation around it
3. a zone of infiltration of the lung tissue with clarification in the centre, cavity's contours are poorly defined
4. a solitary thin-walled cavity with minimal changes in the lung tissue

140. The probability of the presence of tubercular cavity in the lung is confirmed by:

1. hematological blood test
2. tuberculin skin test (Mantoux test)
3. sputum-smear examination with a positive result
4. immunological tests

141. Clinical symptoms characteristic of cavernous pulmonary tuberculosis are:

1. acute onset, fever, expressed intoxication
2. subfebrile temperature, strong cough, profuse expectoration of sputum
3. the signs of intoxication are slight or absent
4. cough with sputum expectoration, dyspnea, the development of respiratory insufficiency

142. The main cause of fast enlargement of cavity's size and simultaneous thinning of its walls in cavernous pulmonary tuberculosis is:

1. aggravation of tuberculous process
2. formation of the broncho-pleural fistula
3. disturbance of drainage function of the bronchus
4. clearance of the cavity from a caseous-necrotic layer

143. The radiological signs characteristic for fibrous-cavernous pulmonary tuberculosis are:

1. the cavity with irregular contours with the presence of a perifocal inflammatory reaction
2. the thin-walled cavity without the fluid level
3. the cavity with irregular thickness of the wall, an internal contour is rough, the presence of expressed reaction from the lung's root
4. the cavity with thick fibrous walls with reduction of the lung's volume and presence of dissemination foci in the surrounding pulmonary tissue

144. Cavernous and fibrous-cavernous pulmonary tuberculosis must be differentiated from:

1. pneumosclerosis
2. atelectasis
3. infected cyst
4. chronic bronchitis

145. The cirrotic pulmonary TB develops more often from:

1. infiltrative pulmonary TB
2. cavernous pulmonary TB
3. fibrous-cavernous pulmonary TB
4. lung tuberculoma

146. Clinical picture more typical of cirrhotic pulmonary tuberculosis is:

1. acute onset with a high temperature and expressed cough
2. gradual onset, moderate cough, weakness, sweating, poor appetite
3. dyspnea, cough with sputum, chronic course
4. clinical symptoms are slightly expressed

147. In cirrhotic pulmonary tuberculosis the mediastinum organs are displaced:

1. towards the healthy side
2. towards the affected side
3. are not displaced
4. upwards

148. The physical findings characteristic of dry pleurisy are:

1. dullness of percussion sound
2. diminished vesicular respiration
3. pleural friction rub
4. increased vocal fremitus

149. The clinical signs typical in exudative pleurisy are:

1. chest pain, hypopnea
2. high fever, expressed cough with sputum, moist rales
3. paroxysmal dyspnea, wheezes
4. febrile temperature, dullness of percussion sound, diminished breath sounds

150. The significant laboratory indicator of TB etiology of the pleural fluid is:

1. the high specific gravity of the pleural fluid
2. positive Rivalta's test
3. the prevalence of lymphocytes in a cell profile of effusion
4. detection of MBT in effusion by bacterioscopy or cultural method

151. What cells predominate in effusion of TB etiology?

1. lymphocytes
2. monocytes
3. neutrophils
4. mesotelial cells

152. The content of protein characteristic of pleural exudation, unlike transudation, is:

1. 10g/l
2. 15g/l
3. 20g/l
4. 25-30 and more g/l

153. Complications of tuberculosis include:

1. pyelonephritis
 2. spontaneous pneumothorax
 3. agranulocytosis
 4. renal amyloidosis
 5. fibrous alveolitis
- two right answer

154. Hemoptysis and pulmonary hemorrhage are often observed in patients with:

1. subacute disseminated pulmonary tuberculosis in the phase of destruction
2. focal pulmonary tuberculosis in the phase of destruction
3. lung tuberculoma in the phase of destruction
4. miliary pulmonary tuberculosis

155. In pulmonary hemorrhage blood appears:

1. with cough
2. with vomiting
3. without cough unlike hemoptysis

4. when bending the body

156. "Cor pulmonale" is most often the complication of:

1. infiltrative pulmonary tuberculosis
2. miliary pulmonary tuberculosis
3. fibro-cavernous pulmonary tuberculosis
4. tuberculosis pleurisy

157. What clinical form of tuberculosis is most often complicated by spontaneous pneumothorax?

1. caseous pneumonia with multiple cavities
2. focal pulmonary tuberculosis in the phase of destruction
3. miliary pulmonary tuberculosis
4. lung tuberculoma in the phase of destruction

158. The main method for diagnostics of spontaneous pneumothorax is:

1. clinical symptoms
2. chest X-ray
3. percussion
4. auscultation

159. The percussion sign of spontaneous pneumothorax is:

1. the normal lung sound
2. shortening of the percussion sound
3. dullness of the percussion sound
4. "box" sound

160. Auscultation signs of spontaneous pneumothorax are:

1. bronchial breathing
2. "amphoric" breathing
3. breathing is diminished or inaudible
4. vesicular breathing

161. The most severe type of spontaneous pneumothorax is:

1. open
2. valvular
3. closed
4. no significant difference

162. Amyloidosis of internal organs as a complication of TB is more common in patients with:

1. focal pulmonary tuberculosis
2. cavernous pulmonary tuberculosis
3. miliary pulmonary tuberculosis
4. fibro-cavernous pulmonary tuberculosis

163. What abnormalities are prevalent in the urine analysis in case of renal amyloidosis?

1. hematuria
2. pyuria
3. bilirubinuria
4. albuminuria

164. The differential diagnosis of tuberculous bronchoadenitis is carried out with:

1. sarcoidosis
2. bronchopneumonia
3. peripheral cancer
4. interlobular pleurisy

165. The differential diagnosis of primary tuberculous complex is often carried out with:

1. acute bronchitis
2. dry pleurisy
3. pneumonia
4. lymphogranulomatosis

166. The differential diagnosis of miliary TB is carried out with:

1. lobar pneumonia
2. pneumosclerosis
3. interstitial pneumonia
4. peripheral cancer

167. Characteristic signs of miliary tuberculosis which help to differentiate it from carcinoma-tosis are:

1. high up to 39°- 40° C hectic temperature
2. developing exudative pleurisy with a persistent course and hemorrhagic exudate
3. occurrence of dyspnea and its gradual increasing in severity
4. the presence of small foci (up to 0.5cm) with distinct contours which are not fused

168. Focal pulmonary tuberculosis is most often differentiated with:

1. peripheral cancer
2. eosinophilic pneumonia
3. bronchopneumonia
4. benign tumour

169. The differential diagnostics of rounded infiltration is carried out with:

1. cavernous pulmonary tuberculosis
2. bronchopneumonia
3. atelectasis
4. peripheral cancer

170. The most important blood test changes in differential diagnostics of tuberculosis and pneumonia are:

1. hemoglobin level
2. erythrocyte sedimentation rate (ESR)

3. leucocytosis
4. lymphocytes percentage

171. What is the most informative in differential diagnostics of caseous pneumonia with lung fever?

1. anamnesis of the disease and the data of clinical examination
2. bronchoscopy data
3. detection of MBT in sputum
4. radiological data

172. Caseous pneumonia should be differentiated first of all from:

1. sepsis
2. meningitis
3. central cancer
4. lung fever

173. Lung tuberculoma must be differentiated from:

1. bronchopneumonia
2. chronic lung abscess
3. pulmonary gas-filled cyst
4. peripheral lung cancer

174. A radiological sign characteristic of the tubercular cavity, unlike abscess of the lungs, is:

1. the significant amount of fluid in the cavity
2. reaction in the surrounding tissue: appearance of polymorphic nodes shadows
3. the enlarged lung's root due to reactive adenitis
4. a wide and irregular inflammatory zone around the cavity

175. The main causes of the development of fibro-cavernous pulmonary tuberculosis are:

1. irrational treatment of the preceding forms
 2. elderly patient
 3. male
 4. genetic factors
 5. drug resistance MBT
- two right answers

Right answers

1.	2	41.	2	81.	3	121.	4	161.	2
2.	4	42.	1	82.	1	122.	3	162.	4
3.	2	43.	3	83.	1	123.	4	163.	4
4.	1	44.	2	84.	3	124.	1	164.	1
5.	2	45.	1	85.	3	125.	2	165.	3
6.	2	46.	3	86.	2	126.	1	166.	3
7.	4, 6	47.	1	87.	1	127.	2	167.	1
8.	3	48.	3	88.	3	128.	4	168.	3
9.	2	49.	1	89.	4	129.	3	169.	4
10.	3,5,1,4,2	50.	2	90.	2	130.	3	170.	3
11.	2	51.	4	91.	4	131.	3	171.	3
12.	2	52.	2	92.	2	132.	3	172.	4
13.	1, 5	53.	3	93.	3	133.	3	173.	4
14.	2	54.	4	94.	1	134.	3	174.	2
15.	3	55.	4	95.	3	135.	2	175.	1,5
16.	2	56.	1	96.	4	136.	3		
17.	4	57.	3	97.	3	137.	2		
18.	2	58.	3	98.	4	138.	2		
19.	2	59.	1	99.	2	139.	4		
20.	3	60.	4	100.	2	140.	3		
21.	2	61.	2	101.	4	141.	3		
22.	1, 5	62.	2	102.	2	142.	3		
23.	3	63.	2	103.	4	143.	4		
24.	1	64.	2	104.	2	144.	3		
25.	1, 3	65.	4	105.	3	145.	3		
26.	3, 1	66.	4	106.	3	146.	3		
27.	4	67.	4	107.	3	147.	2		
28.	3	68.	2	108.	4	148.	3		
29.	2	69.	2	109.	1	149.	4		
30.	1	70.	4	110.	2	150.	4		
31.	4	71.	3	111.	3	151.	1		
32.	4	72.	4	112.	2	152.	4		
33.	2	73.	3	113.	2	153.	2, 4		
34.	2, 5	74.	3	114.	3	154.	1		
35.	3	75.	3	115.	2	155.	1		
36.	3, 5	76.	2	116.	2	156.	3		
37.	1	77.	1	117.	3	157.	1		
38.	2	78.	2	118.	2	158.	2		
39.	3	79.	3	119.	3	159.	4		
40.	2, 5	80.	4	120.	1	160.	3		