

№ ЛД-21 ИИ

**Federal State Budgetary Educational Institution of Higher Education
«North-Ossetia State Medical Academy»
of the Ministry of Healthcare of the Russian Federation**

Department of Phthisiopulmonology

Methodological developments
for practical classes in the discipline “Phthisiology”
for 6th year students of the medical-pediatric and medical-preventive faculties, 4th year
students of the dental faculty.

Vladikavkaz, 2023

Methodical recommendations are intended for practical skills of the 6th year
(11th semester) of the medical faculty FSBEI HE SOGMA Ministry of Health of Russia
in the discipline of phthisiopulmonology

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annotation

Classes By phthysiologists For students 6 course therapeutic faculty are carried out on the basis of the State Budgetary Institution "Republican Clinical Center for Phthysiopulmonology" of the Ministry of Health of the Republic of North Ossetia-Alania.

Class time: 1 stream 9.00 -13.05

2 stream 13.30-17.35

Program cycle calculated on 12 practical classes (68 hours), independent extracurricular work is 48 hours.

List literature.

Main literature

1. Phthysiology: textbook [Electronic resource] / Perelman M.I., Bogadelnikova I.V. - 4th edition, revised and expanded. – M.: GEOTAR-Media, 2013. – 446 With. - Mode access: <http://www.studentlibrary.ru>.

Additional literature

1. Pathology organs breathing [Electronic resource] / Under by the editors academician RANS, Professor Paukov V.S. – M.: Litterra , 2013 – 272 p. - Access mode: <http://www.studentlibrary.ru>
2. Pulmonology: national guidelines [Electronic resource] / Edited by Chuchalina A.G. - M.: GEOTAR-Media, 2014. – 800 With. – Mode access: <http://www.studentlibrary.ru>
3. Timely detection of extrapulmonary tuberculosis: guidelines: textbook [Electronic resource] / Yudin S.A., Shmelev E.N. Edited by Professor Borzenko A.S. – Volgograd, VolgSMU 2007. – 32 p. - Access mode: <http://www.library.volgmed.ru>
4. Modern methods immunodiagnostics tuberculosis: educational and methodological manual [Electronic resource] / Popkova N.L., Kaluzhenina A.A. Edited by Professor Borzenko A.S. – Volgograd, VolgSMU 2014. – 44 p. - Access mode: <http://www.library.volgmed.ru>
5. Modern drug-resistant tuberculosis lungs: educational allowance [Electronic resource] / Borzenko A.S., Shmelev E.N., Gagarina S.G. – Volgograd, VolgSMU 2014. – 64 pp. – Mode access: <http://www.library.volgmed.ru>
6. Tuberculosis And HIV infection at adults: management [Electronic resource] / Zimina V.N., Koshechkin V.A., Kravchenko A.V. - M.: GEOTAR-Media, 2014. – 224 With. – Mode access: <http://www.studentlibrary.ru>
7. Pulmonary tuberculosis with a drug-resistant pathogen: a textbook [Electronic resource] / Mishin V.Yu., Chukanov V.I., Grigoriev Yu.G. and others - M.: GEOTAR-Media, 2009. – 208 With. - Mode access: <http://www.studentlibrary.ru>
8. Tuberculosis in children And teenagers [Electronic resource] / Under by the editors V.A. Aksenova. M., 2007 – 272 With. – Mode access: <http://www.studentlibrary.ru>
9. Tuberculin diagnostics : textbook [Electronic resource] / Mishin V.Yu. - M., 2013. – 136 p. – Mode access: <http://www.studentlibrary.ru>
10. Phthysiology [Electronic resource] / Perelman M.I., Bogadelnikova I.V. - M., 2010 – 448 p. - Mode access: <http://www.studentlibrary.ru>
11. Phthysiology: national guide / editor-in-chief M.I. Perelman. - M.: GEOTAR-Media, 2007. – 512 p.
12. Phthysiopulmonology [Electronic resource] / Mishin V.Yu., Grigoriev SOUTH., Mitronin A.V. And etc. - M.: GEOTAR-Media, 2010. – 504 With. – Mode access: <http://www.studentlibrary.ru>

Class No. 1

Topic of the lesson : organizing the fight against tuberculosis. Structure and functions of the anti-tuberculosis service. Anti-tuberculosis dispensary, tasks and organization of its work. Organization of timely detection of respiratory tuberculosis. Work in the hearth tuberculosis infections.

Place carrying out: educational audience departments phthisiopulmonology.

Target classes : Explore structure, tasks And organization work anti-tuberculosis dispensary. Assimilate groups dispensary observations, familiarize yourself with the medical documentation of the TB department. Learn the methods early identifying tuberculosis at children And teenagers A Also at adults. Teach students according to mass tuberculin diagnostics and fluorography to produce selection contingents For further examinations on tuberculosis, A Also assign microbiological methods for diagnosing tuberculosis when examining contingents, observed in institutions of the general medical network. Understand disease risk groups tuberculosis and the procedure for their observation. Familiarize yourself with the concept of "tuberculosis focus" infections." Acquainted with work in hearth tuberculosis infections.

Formed competencies: defense industry -
 1,4,6,8,9,10,11, PC -
 1,2,3,4,5,6,7,8,9,10,11,14,15,16,17,18,20,21,22

Plan practical classes

Basic stages	Time, min.	Form carrying out	Equipment
2. Control original level knowledge.	15	In writing, testing. Independent Job	Tests questions
1. Antituberculosis dispensary, tasks and organization his works. Organization timely identifying respiratory tuberculosis. Work in a tuberculosis outbreak infections.	15	Interview	Educational tables, forms honey. documentation
2. Job With medical documentation phthisiatricplot.	thirty	IndependentJob	Educational tables, forms honey. documentation
3. Job With fluorograms .	thirty	Independent Job	Kit fluorogram
4. Summing up results.	9	Summary teacher	Homemade exercise

Methodical security independent work :

1. Educational tables.
2. Forms medical documentation.
3. Dispensary stories illnesses, cards district police officer (patronage) medicalsisters.
4. Fluoroscopes .
5. Fluorograms .

As a result of practical training, students should develop following knowledge and practical skills.

Student must know :

1. Organization work anti-tuberculosis services V city And rural terrain.
2. structure, tasks anti-tuberculosis dispensary. Dispensary grouping sick tuberculosis. Medical documentation phthisiatric plot.
3. Organization mass tuberculin diagnostics in children And teenagers
4. Criteria selection contingents For further examinations on tuberculosis By results mass tuberculin diagnostics .
5. Organization massive fluorographic surveys population With purpose identifying tuberculosis. Contingents, subject mandatory research on tuberculosis V institutions general medicinal networks.
6. Groups risk diseases tuberculosis And order their observations.
7. The procedure for further examination of persons with pathological changes fluorogram .
8. Clinical minimum examinations on tuberculosis V institutions general medicinal networks.
9. Role microbiological methods V identifying tuberculosis V institutions general medical network.

Student must be able to :

1. Right design outpatient map And map emergency notices about highly infectious diseases (form 58).
2. Define groups dispensary accounting.
3. By results mass tuberculin diagnostics conduct selection children And teenagers subject to additional examination for tuberculosis.
4. Prescribe fluorography to persons subject to mandatory examination for tuberculosis V institutions general medical network.
5. Carry out additional examination for tuberculosis in cases where fluorography are revealed pathological changes begin microbiological studies for CD in persons producing sputum from those observed in outpatient and stationary institutions general medicinal networks.

Questions For self-preparation for occupation:

1. Structure anti-tuberculosis dispensary.
2. Tasks anti-tuberculosis dispensary.
3. Organization of timely detection of tuberculosis among children and teenagers
4. Organization timely identifying tuberculosis at adults.
5. What understand under hearth tuberculosis infections.
6. Types foci.
7. Measures By prevention tuberculosis V hearth tuberculosis infections.

Questions By topic classes, removable on exam

- 1 Antituberculosis dispensary, his structure And organization work.
- 2 Grouping contingents antituberculosis dispensary.
- 3 Methods and significance of tuberculosis prevention. Social, sanitary and specific prevention tuberculosis.
- 4 Chemoprophylaxis tuberculosis.
- 5 Organization outpatient treatment sick tuberculosis lungs.
- 6 Diagnostics tuberculosis V conditions general medicinal networks.
- 7 Hearth tuberculosis infections. Types foci.

- 8 Carrying out current disinfection V hearth tuberculosis infections.
- 9 Carrying out final disinfection V hearth tuberculosis infections.

Class No. 2

Subject classes : Etiology and pathogenesis of tuberculosis. The concept of drug resistance of MBT. Epidemiology, microbiology tuberculosis. Paths infection. Sanitary-epidemiological mode V clinic tuberculosis. Deontology in phthisiology. Methods of clinical examination of a patient with pulmonary tuberculosis: complaints, anamnesis, objective status.

Place carrying out : educational audience departments phthisiopulmonology.

Purpose of the lesson : Students will master the main epidemiological indicators, characteristics of the causative agent of tuberculosis, routes of infection, sanitary and epidemiological regime V tuberculosis hospital. Assimilation students techniques clinical examinations sick tuberculosis lungs.

Molded competencies: defense industry - 1,4,6,8,9,10,11, PC - 4,5,6,17,18,20,21,22

Plan practical classes

Basic stages	Form carrying out	Time, min.	Equipment
1. Organizational part. Safety precautions for students V clinic tuberculosis.	Independent Job.	10	Instructions By technology security
2. Epidemiology, microbiology of tuberculosis. Routes of infection. Peculiarities clinical examinations sick tuberculosis lungs.	Interview	120	Educational tables
3. Studying scheme stories diseases.	Independent Job.	10	Scheme stories illnesses
4. Visit departments For patients with pulmonary tuberculosis and familiarization with the conditions content V tuberculosis clinic.	Visit departments with teacher.	15	Department for sick tuberculosis lungs GKUZ VOCPD
5. Curation sick, Job With history diseases.	Independent Job V pulmonary department.	25	Case histories sick tuberculosis
6. Summing up results.	Summary teacher	9	Homemade exercise

Methodical security independent works:

1. Educational tables.
2. Scheme educational stories diseases.
3. Stories illnesses supervised sick.
4. Kit tests For definitions original level knowledge.

IN result classes at student must be formed following knowledge And practical skills.

Student must know :

1. Basic epidemiological indicators at tuberculosis (infection, morbidity, morbidity, mortality).

2. Basic types mycobacteria tuberculosis, their peculiarities. Paths infection.
3. Sanitary-epidemiological mode V clinic tuberculosis.
4. Modern methods examinations sick tuberculosis lungs (complaints, anamnesis, objective status) in compliance with the standard.
5. Typical For tuberculosis lungs clinical symptoms, manifestations intoxication And broncho-pulmonary-pleural syndromes.
6. Methodology And peculiarities studying medical history tuberculosis sick (epidemiological, professional, x-ray), groups riskdiseases tuberculosis.
7. Methodology objective research at tuberculosis lungs.

Student must be able to :

1. Observe technique security V tuberculosis hospital.
2. Collect complaints, medical history, conduct an objective examination of the patient tuberculosis lungs.
3. Right interpret data clinical research.

Questions For self-preparation for occupation:

1. Basic questions, subject lighting V stories development diseases.
2. Role epidemiological And X-ray medical history V diagnosticstuberculosis.
3. Name groups increased risk diseases tuberculosis.
4. What are the main epidemiological indicators for tuberculosis ? (infection, morbidity, pain, mortality).
5. Name basic types mycobacteria tuberculosis, their peculiarities.
6. Types of resistance of mycobacteria to antituberculosis drugs.
7. Name ways infection at tuberculosis.
8. Light up sanitary-epidemiological mode V clinic tuberculosis.
9. The structure of tuberculous granuloma.
10. Pathological anatomy primary tuberculosis.
11. Pathological anatomy secondary tuberculosis.
12. Pathological anatomy destructive forms tuberculosis.

Questions By topic classes, removable on exam.

- 1 Organization struggle With tuberculosis V Russian Federation . Story development phthisiatric services.
- 2 Pathogen tuberculosis and him properties. Atypical forms mycobacteria.
- 3 Main epidemiological indicators of tuberculosis: infection rate, morbidity, soreness, mortality
- 4 Sources, ways And ways infection tuberculosis.
- 5 Meaning anamnestic data at diagnostics tuberculosis.
- 6 Intoxicating And bronchopulmonary syndromes at tuberculosis.
- 7 Physical data at tuberculosis organs breathing.
- 5 Basic stages development tuberculosis process. Primary And secondary periods tuberculosis infections
- 6 Structure tuberculosis granulomas.
- 7 Pathological anatomy primary tuberculosis.
- 8 Pathological anatomy secondary tuberculosis.
- 9 Pathological anatomy destructive forms tuberculosis.

Class No. 3

Topic of the lesson : Methods for examining patients with pulmonary tuberculosis: laboratory, instrumental diagnostics. Deontology in phthisiology. Methods of clinical examination of a patient with pulmonary tuberculosis: complaints, anamnesis, objective status.

Functional methods research.

Place carrying out : educational audience departments phthisiopulmonology.

Target classes : Assimilation students techniques laboratory, X-ray And instrumental examinations sick tuberculosis lungs. Studying functional research methods for tuberculosis.

Molded competencies: defense industry - 1,4,6,8,9,10,11, PC - 4,5,6,17,18,20,21,22

Plan practical classes

Basic stages	Form carrying out	Time, min.	Equipment
1. Laboratory diagnostics tuberculosis.	Interview	25	Study tables for laboratory diagnostics
2. Independent Job With analyses.	In writing	15	Kit analyzes blood, urine, sputum
3. X-ray diagnostics tuberculosis.	Interview	35	Set of radiographs sick tuberculosis lungs
4. Studying scheme descriptions pathological _ changes to radiographs in patients with various forms pulmonary tuberculosis, work with radiographs of supervised sick.	Independent work with methodical developments and radiograph sick	thirty	educational tables, methodical development, radiographs supervised sick
5. Bronchological studies in patients with suspicion on tuberculosis upper respiratory ways And lungs.	Interview with using slides by tracheobronchoscopy sick tuberculosis	thirty	Educational slides
6. Introduction to the methodology research and tools tracheobronchoscopy V bronchological office.	Visit with teacher bronchological office	20	Bronchological cabinet GBUZ RKTSFP
7. Functional methods research.	Interview	25	Electrocardiograms And spiograms sick tuberculosis lungs
8. Study and interpretation electrocardiograms and data spiography at tuberculosis organs breathing.	Independent Job	15	Electrocardiograms and spiograms supervised sick
9. Summing up results.	Summary teacher	9	Homemade exercise

Methodical security independent works:

1. histories , radiographs, electrocardiograms and spirometers supervised patients.
2. Kit analyzes blood, urine, sputum at different forms of tuberculosis.
3. Kit radiographs sick With different forms And phases tuberculosis lungs Andhis complications.
4. X-ray diagram of the lobar and segmental structure of the lungs display (according to M.Z. Upiter).
5. Scheme for describing pathological shadows of the main radiological syndromes diseases lungs.

IN result classes at student must be formed following knowledge And practical skills.

Student must know :

1. Methodology general research blood, urine And sputum. Changes blood, urine And sputum, characteristic tuberculosis.
2. Methodology fence material, subject research on MBT (sputum, flushing water bronchi And stomach, annoying method inhalations).
3. Methods of X-ray diagnostics of pulmonary tuberculosis (fluoroscopy, radiography, computed tomography, nuclear magnetic resonance tomography).
4. Normal x-ray anatomy chest cells.
5. Scheme descriptions pathological changes on radiograph.
6. Methods of optical tracheobronchology .

Student must be able to :

1. Use results general research blood, urine, sputum, A Also results special research pathological material on the office For diagnostics tuberculosis.
2. Prescribe various x-ray methods for examination sick With suspicion on pulmonary tuberculosis.
3. Find And describe pathological changes V lungs on radiograph.
4. Use X-ray data to determine the shape, phases, localization and complications tuberculosis lungs.
5. Use results tracheobronchoscopy For diagnostics tuberculosis lungs.

Questions For self-preparation for occupation:

1. Symptoms characteristic For tuberculosis intoxication.
2. Symptoms characteristic For broncho-pulmonary-pleural syndrome.
3. What such inspiratory dyspnea?
4. Name groups increased risk diseases tuberculosis.
5. How caused inspiratory dyspnea?
6. ABOUT how testifies barking cough (paroxysmal)?
7. ABOUT how testify pain V chest cage at sick tuberculosis lungs in time acts of breathing?
8. ABOUT how testifies symptom fingers V form "drum sticks"?
9. From what depends dyspnea at tuberculosis lungs?
10. Breath sick at dry pleurisy.
11. ABOUT how indicates the release sputum complete mouth?
12. ABOUT how testifies positive symptom Vorobyov- Pottenger ?
13. ABOUT how testifies bias trachea V affected side?
14. ABOUT how testifies shortening fields Krenig ?
15. ABOUT how testifies hard breath on limited space?
16. ABOUT how indicates bronchial breath?
17. ABOUT how testify wet wheezing "bun"?
18. Percussion sound at cirrhotic process.

19. Percussion sound at spontaneous pneumothorax.
20. Voice trembling at spontaneous pneumothorax.
21. On which side lies sick With dry pleurisy?
22. On which side lies sick With exudative pleurisy?
23. Peculiarities pulmonary bleeding.
24. When observed accent II tones pulmonary arteries?
25. IN how difference between crepitus, wet wheezing And noise frictionpleura?
26. What determines the deafness of heart tones? patient with chronic tuberculosis lungs?
27. ABOUT how testifies amphoric shade breathing?
28. View consumptive sick.
29. Tracheobronchoscopy : readings And contraindications.
30. Cytological and histological studies carried out during tracheobronchoscopy .
31. Concept O medicinal tracheobronchoscopy .

Questions By topic classes, removable on exam.

- 1 Biochemical research blood at tuberculosis.
- 2 Serological methods diagnostics tuberculosis.
- 3 Change laboratory indicators at tuberculosis process.
- 4 Bacteriological methods diagnostics tuberculosis.

Class No. 4

Topic of the lesson : Radiation diagnostics of tuberculosis. Basic methods of radiation examination of the chest organs. Method of reading a normal chest x-ray (in frontal and lateral projection). Localization of lobes and segments of the lungs. X-ray semiotics of pulmonary tuberculosis.

Place carrying out : educational audience departments phthisiopulmonology.

Target classes : Assimilation students techniques X-ray examinations sick tuberculosis lungs.

Molded competencies: defense industry - 1,4,6,8,9,10,11, PC - 4,5,6,17,18,20,21,22

Plan practical classes

Basic stages	Form carrying out	Time, min.	Equipment
1. X-ray diagnostics tuberculosis	Interview	25	educational tables, methodical development, radiographs supervised sick
2. Studying scheme descriptions pathological changes to X-ray and CT scans in patients with various forms of pulmonary tuberculosis,	Independent work with methodical developments and radiographssick	60	educational tables, methodical development, radiographs supervised sick
3. Work with radiographs and CT scans supervised sick.	Interview	thirty	Case histories of patients of the State Budgetary Healthcare Institution RKTSFP Ministry of Health of the Republic of North Ossetia-Alania.
4. Independent description of typical radiographs of patients with pulmonary tuberculosis.	Independent Job	20	Educational slides
5. Summing up results.	Summary teacher	9	Homemade exercise

Methodical security independent works:

1. histories , x-rays, CT scans supervised patients.
2. Kit radiographs sick With different forms And phases tuberculosis lungs And his complications.
3. X-ray diagram of the lobar and segmental structure of the lungs display (according to M.Z. Upiter).
4. Scheme for describing pathological shadows of the main radiological syndromes diseases lungs.

IN result classes at student must be formed following knowledge And practical skills.

Student must know :

1. Methods of X-ray diagnostics of pulmonary tuberculosis (fluoroscopy, radiography, computed tomography, nuclear magnetic resonance tomography).
2. Normal x-ray anatomy chest cells.
3. Scheme descriptions pathological changes on radiograph.

Student must be able to :

1. Prescribe various x-ray methods for examination sick With suspicion on pulmonary tuberculosis.
2. Find And describe pathological changes V lungs on radiograph.
3. Use X-ray data to determine the shape, phases, localization and complications tuberculosis lungs.

Questions For self-preparation for occupation:

1. Name X-ray methods research, used V clinic tuberculosis.
2. Name advantage everyone from named methods research.
3. Draw shared And segmental display lungs on radiographs (V straight and lateral projections).
4. Describe normal x-ray anatomy chest cells.
5. IN which segments more often localized tuberculosis.
6. Symptoms focal darkening.
7. Symptom dissemination.
8. Symptoms rounded shadows (focus darkening).
9. Symptoms plot limited dimming: behind check infiltration, behind check hydrothorax, due to pneumofibrosis, due to account of atelectasis.
10. Symptoms ring-shaped shadows.
11. Symptoms changes root lung: sizes, shapes, structures, contour.
12. Symptoms offsets median lines shadows.
13. Symptoms changes pulmonary drawing.
14. Symptoms hypoventilation , atelectasis, emphysema.
15. Symptoms cavities decay.
16. Symptoms deformation chest cells.
17. Symptoms pneumohydrothorax .
18. Symptoms which Can discover at bronchography.
19. Fluorography, positive And negative moments.
20. Frequency fluorography at various contingents, By age, professional selection morbidity tuberculosis V regions, V groups risk By tuberculosis.
21. Organization And carrying out fluorographic examinations.
Questions on the topic of the lesson submitted for the exam.
 1. The main radiological signs of pulmonary tuberculosis.

2. Fluorographic method of examining the population and contingents for tuberculosis.

Class No. 5.

Topic of the lesson : Allergy and immunity in tuberculosis. Immunological methods research. Tuberculin diagnostics . Diaskintest . Anti-tuberculosis vaccination And BCG revaccination.

Place carrying out : educational audience departments phthisiopulmonology.

Purpose of the lesson : To understand the concept of allergies and immunity in tuberculosis. Explore methodology tuberculin diagnostics . Master methodology vaccinations BCG, study readings And contraindications to vaccination And revaccination.

Molded competencies: defense industry - 1,4,6,8,9,10,11, PC - 4,5,6,17,18,20,21,22

Plan practical classes

Basic stages	Time, min.	Form carrying out	Equipment
1. Allergy And immunity at tuberculosis. Immunological methods research. Tuberculin diagnostics . Diaskintest .	60	Interview	Educational tables
2. Read the instructions for tuberculin diagnostics .	10	Independent Job	Instructions By tubercles - nodiagnos - tick
3. Job V procedural office. Introduction to tuberculin preparations. Staging samples Mantoux With 2 THOSE PPD-L.	thirty	Independent Job	Procedures ny cabinet GBUZ RKTSP
4. Tuberculosis vaccination and revaccination BCG.	60	Interview	Educational tables, vaccine BCG, tool
5. Read the instructions for vaccinations And revaccination BCG.	10	Independent Job	Instructions By vaccinations
6. Introduction to the BCG vaccine and BCG-M, tools for carrying out vaccinations.	10	Independent Job	Vaccinated - ny cabinet GBUZ RKTSP
7. Testing and survey topics first module (theoretical basics phthisiology, diagnostics tuberculosis)	50	Independent Job, written, interview	Tests
8. Summing up results.	10	Summary teacher	Homemade exercise

Methodical security independent works:

1. Educational tables.

2. Drugs tuberculin.
3. Tools For testing Mantoux And Diaskin test.
4. Instructions By tuberculin diagnostics .

5. Vaccine BCG And BCG-M.
6. Tools For vaccinations BCG.
7. Instructions By vaccinations BCG.
8. Stories illnesses supervised sick.
9. Kit tests By topics first module (theoretical basics phthisiology,diagnostics).

IN result classes at student must be formed following knowledge Andpractical skills.

Student must know :

1. Drugs tuberculin (ATK, PPD-L), Diaskin test.
2. Reaction infected And uninfected body on introduction tuberculin.
3. Methodology carrying out And assessment results samples Mantoux With 2TE PPD-L, subcutaneous tuberculin samples (Koha, hemotuberculin , protein - tuberculin), Diaskin test.
4. Vaccines BCG And BCG-M.
5. Methodology vaccinations BCG And revaccination.
6. Indications, contraindications And complications vaccinations And revaccination.

Student must be able to :

1. Define readings And contraindications To carrying out samples Mantoux And Diaskin test.
2. Interpret results samples Mantoux With 2TE PPD-L, Diaskin test.
3. Define readings And contraindications To carrying out provocativetuberculin samples
4. Define readings And contraindications To vaccinations And revaccination.

Questions For self-preparation for occupation:

1. Kinds tuberculin.
2. What such PPD-L?
3. Differences between ATK And PPD-L?
4. Kinds tuberculin samples
5. Through Which term taken into account results tuberculin samples?
6. Which response reactions body on tuberculin Can observe?
7. What such positive anergy?
8. What such negative anergy?
9. What such turn tuberculin samples?
10. Indications For samples Mantoux.
11. Technique introduction tuberculin at sample Mantoux.
12. Which reactions body Can observe at sample Mantoux?
13. Size papules, characterizing positive reaction at Mantoux?
14. What should understand under general reaction body on tuberculin?
15. Indications For samples Koha.
16. Technique productions samples Koha.
17. Which response reactions body Can observe at sample Koha?
18. What such focal reaction?
19. ABOUT how testifies focal reaction?
20. What such vaccine BCG And BCG-M?
21. IN which deadlines held vaccination And revaccination?
22. What are the indications and contraindications for vaccination

and revaccination?

23. Which criteria Right carried out vaccinations?

24. What is duration post-vaccination immunity?

Questions By topic classes, removable on exam.

- 1 Immunity And allergy at tuberculosis.
- 2 Tuberculin. Kinds tuberculin.
- 3 Try Mantoux. Indications, contraindications, technique, grade results.
- 4 Diaskin test. Technique, diagnostic meaning.
- 5 Test Mantus 2TEPPD-L. Use for identifying primary infection children.
- 6 Subcutaneous tuberculin tests, role in determining activity and differential diagnostics tuberculosis.
- 7 vaccination . Method of vaccination. Indications, contraindications, technique introduction vaccines.
- 8 Reaction body on introduction BCG, observation behind with the current vaccination reactions. Duration post-vaccination immunity.
- 9 Carrying out revaccination BCG. Contingents, subject revaccinations, deadlines carrying out.
- 10 Indications And contraindications For vaccinations and revaccination BCG.
- 11 Complications vaccinations BCG.

Class No. 6.1.

Subject classes : Clinical classification tuberculosis lungs. Formulation clinical diagnosis of a patient with respiratory tuberculosis. Primary tuberculosis. Tuberculosis intoxication children And teenagers Clinic, diagnostics, differential diagnosis, outcomes.

Place carrying out : educational audience departments phthisiopulmonology.

Target classes : Explore clinical classification tuberculosis. Learn Right formulate diagnosis V compliance With classification. Concept O primary tuberculosis. Assimilation students pathogenesis, pathological anatomy, clinics, diagnostics differential diagnostics And outcomes tuberculosis intoxication.

Molded competencies: defense industry - 1,4,6,8,9,10,11, PC - 1,5,6,8,9,11,20,21,22

Plan practical classes

Basic stages	Form carrying out	Time, min.	Equipment
1. Clinical classification tuberculosis. Formulation clinical diagnosis sick tuberculosis organs breathing.	Interview	60	Educational tables
2. Solution tasks on formulation of the diagnosis for different forms tuberculosis.	Independent Job	thirty	Kit tasks
3. Primary tuberculosis. Tuberculosis intoxication children And teenagers Clinic, diagnostics, differential diagnostics, outcomes.	interview	60	Educational tables
4. Solution tasks By topic "tuberculosis intoxication children and teenagers."	Independent Job	15	Kit tasks
5. Curation sick.	Independent Job	60	Case histories supervised sick, department GKUZ VOCPD
6. Summing up results.	Summary teacher	10	Homemade exercise

Methodical security independent works:

1. Educational tables.
2. Stories illnesses supervised sick.
3. Situational tasks.

As a result of practical training, the student should develop following knowledge and skills.

Student must know :

1. Clinical classification tuberculosis.
2. Primary infection And his identification.

3. Pathogenesis And pathological anatomy primary tuberculosis.
4. Clinic And diagnostics, differential diagnostics, outcomes tuberculosis intoxication.

Student must be able to :

1. Make a diagnosis of pulmonary tuberculosis in accordance with the clinical classification.
2. Reveal primary infection tuberculosis at children And teenagers
3. Conduct diagnostic examination at tuberculosis intoxication V compliance with the standard.
4. Based evidentiary clinical and radiological data set diagnosis tuberculosis intoxication.

Questions For self-preparation for occupation:

1. Give definition primary tuberculosis.
2. Name basic stages pathogenesis primary tuberculosis.
3. Describe the anatomical changes characteristic of the forms of primary tuberculosis.
4. What such primary infection?
5. How carried out diagnostics primary tuberculosis?
6. Clinical signs tuberculosis intoxication.
7. Algorithm diagnostics tuberculosis intoxication.
8. Outcomes early And chronic tuberculosis intoxication.

Questions By topic classes, removable on exam.

- 1 Classification tuberculosis. Basic principles And sections classifications, construction diagnosis.
- 2 Primary tuberculosis, forms. Peculiarities pathogenesis And diagnostics
- 3 Clinic, diagnostics, differential diagnostics And treatment tuberculosis intoxication children And teenagers

Class No. 6.2.

Topic of the lesson : Primary tuberculosis. Tuberculosis of the intrathoracic lymphatic nodes Primary tuberculous complex. Clinic, diagnostics, differentialdiagnostics, outcomes.

Place carrying out : educational audience departments phthisiopulmonology.

Target classes : Assimilation students pathogenesis, pathological anatomy, clinics, diagnostics differential diagnostics And outcomes tuberculosis intrathoracic lymph nodes and primary tuberculosis complex. Learn recognize the indicated forms of tuberculosis, justify and correctly formulate diagnosis.

Molded competencies: defense industry - 1,4,6,8,9,10,11, PC - 1,5,6,8,9,11,20,21,22

Plan practical classes

Basic stages	Form carrying out	Time, min.	Equipment
1. Discussion main questions Topics.	Interview	60	Tables By topic
2. Curation sick.	IndependentJob	120	Stories illnesses supervised sick, department GBUZ RKTSFP
3. Description radiographs By topic, solution situational tasks.	IndependentJob	60	Kit radiographs
4. Summing up results.	Summary teacher	9	Homemade exercise

Methodical security independent works:

1. Stories diseases, sheets appointments supervised sick.
2. Kit radiographs By primary tuberculosis.
3. Schemes for describing pathological shadows of the main radiological syndromes lung diseases.
4. X-ray diagram of the lobar and segmental structure of the lungs display.
5. Kit situational tasks By diagnostics primary tuberculosis.

As a result of the lesson, students should develop the following knowledge and practical skills.

Student must know :

1. Concept primary tuberculosis.
2. Clinic, diagnosis, differential diagnosis of tuberculosis intrathoracic lymphatic nodes, primary tuberculosis complex.
3. Peculiarities primary tuberculosis in adults.

Student must be able to :

1. Carry out diagnostic examination at tuberculosis intrathoracic lymphatic nodes And primary complex V compliance with standard.

2. On basis evidentiary clinical and radiological data make a diagnosis studied forms of tuberculosis.
3. Conduct differential diagnostics tuberculosis intrathoracic lymphatic nodes With central cancer, lymphogranulomatosis , sarcoidosis , lymphosarcoma .

Questions For self-preparation for occupation:

1. Clinical signs primary tuberculosis complex.
2. X-ray characteristic primary complex.
3. Phases currents primary complex.
4. Complications primary complex.
5. Deadlines reverse development primary complex.
6. Residual changes after primary complex.
7. Differential diagnostic features of the primary complex and nonspecific pneumonia.
8. List groups intrathoracic lymphatic nodes (By Sukennikov).
9. Forms bronchoadenitis.
10. Clinical manifestations bronchoadenitis.
11. X-ray painting at tuberculosis bronchoadenitis.
12. Options complicated currents bronchoadenitis.
13. Significance tracheobronchoscopy V diagnostics primary tuberculosis.
14. Changes V bronchi at primary tuberculosis.
15. Clinical And X-ray signs atelectasis.
16. The significance of lymphogenous and hematogenous dissemination in primary tuberculosis.
17. Residual changes after bronchoadenitis.
18. Basic differential diagnostic criteria tuberculosis bronchodaenitis , lymphogranulomatosis , mediastinal forms sarcoidosis , central cancer, lymphosarcoma .

Questions By topic classes, removable on exam.

- 1 Clinic, diagnostics, differential diagnostics And treatment primary tuberculosis complex.
- 2 Clinic, diagnostics, differential diagnostics And treatment tuberculosis intrathoracic lymphatic nodes

Class No. 7.

Subject classes : Disseminated tuberculosis lungs. Miliary tuberculosis lungs. Tuberculous meningitis. Clinic, diagnosis, differential diagnosis, outcomes.

Place carrying out : educational audience departments phthiopulmonology.

Target classes : Assimilate pathogenesis, pathological anatomy, clinic, diagnosis, differential diagnosis, outcomes of disseminated tuberculosis lungs, tuberculosis meningitis. Teach students recognize specified forms tuberculosis, justify And formulate correctly diagnosis.

Molded competencies: defense industry - 1,4,6,8,9,10,11, PC - 1,5,6,8,9,11,20,21,22

Plan practical classes

Basic stages	Form carrying out	Time, min.	Equipment
1. Disseminated pulmonary tuberculosis. Miliary tuberculosis lungs. Tuberculous meningitis. Clinic, diagnostics, differential diagnostics, outcomes.	Interview	100	Tables, slides
2. Clinical analysis of patients By topic classes.	Report student, discussion	35	Disease history sick disseminated - nom tuberculosis lungs
3. Curation (bypass) sick.	Independent Job	60	Case histories supervised sick, department of the State Budgetary Healthcare Institution RKTSPF
4. Description radiographs patients with disseminated pulmonary tuberculosis and solutions situational tasks By topic classes.	Independent Job	40	Kit radiographs, situational tasks on the topic classes
5. Summing up results.	Summary teacher	10	Homemade exercise

Methodical security independent works:

1. Stories diseases supervised sick.
2. Kit radiographs By disseminated tuberculosis.
3. Schemes for describing pathological shadows of the main radiological syndromes diseases lungs.
4. X-ray diagram of the lobar and segmental structure of the lungs display.
5. Kit situational tasks By diagnostics disseminated tuberculosis, tuberculosis meningitis.

IN result practical classes at students must be formed following knowledge and practical skills.

Student must know :

1. Pathogenesis, pathological anatomy disseminated tuberculosis lungs.
2. Clinical and radiological characteristics And diagnostics spic, subacute And chronic disseminated tuberculosis lungs And his complications.
3. Pathogenesis And pathological anatomy tuberculosis meningitis.
4. Clinical manifestations And diagnostics tuberculosis meningitis.
5. Methodology spinal punctures at tuberculosis meningitis.
6. Changes spinal liquids at tuberculosis meningitis.

Student must be able to :

1. Conduct diagnostic examination sick disseminated tuberculosis lungs And tuberculosis meningitis V compliance with standard.
2. On basis evidentiary data clinical and radiological examinations And laboratory diagnostics justify And Right formulate a diagnosis studied forms of tuberculosis.
3. Conduct differential diagnostics disseminated tuberculosis lungs, carcinomatosis , pneumoconiosis And stagnant lung

Questions For self-preparation for occupation:

1. Frequency disseminated process among pulmonary tuberculosis.
2. Which forms process turn on V concept disseminated tuberculosis?
3. IN how is pathogenesis hematogenously disseminated tuberculosis?
4. Highlight characteristic pathological changes at acute, subacute And chronic disseminated tuberculosis.
5. List clinical forms miliary tuberculosis.
6. What are clinical manifestations at typhoid And pulmonary forms miliary tuberculosis?
7. Tuberculin sensitivity at miliary tuberculosis.
8. Which method X-ray research apply V diagnostics miliary tuberculosis?
9. X-ray painting at miliary tuberculosis?
10. WITH what diseases should differentiate miliary tuberculosis?
11. Which symptoms distinguish miliary tuberculosis from abdominal typhus?
12. Give definition tuberculosis meningitis.
13. Pathogenesis tuberculosis meningitis.
14. Pathomorphological changes at tuberculosis meningitis.
15. List forms tuberculosis meningitis.
16. Symptoms prodromal period tuberculosis meningitis.
17. Basic symptoms tuberculosis meningitis.
18. What included V concept meningeal syndrome?
19. Which pairs of cranial nerves are affected in tuberculosis? meningitis?
20. Symptoms defeats oculomotor nerve.
21. Symptoms defeats sublingual nerve.
22. Symptoms defeats facial nerve.
23. Changes ocular bottom at tuberculosis meningitis.
24. Character temperature crooked at tuberculosis meningitis.
25. Symptoms defeats vegetative nervous systems.

26. Methodology lumbar punctures.
27. Changes spinal liquids, characteristic tuberculosis meningitis.
28. Character cavern at chronic disseminated tuberculosis.
29. Name the morphological signs of chronic disseminated tuberculosis.
30. Peculiarities started currents chronic disseminated tuberculosis.
31. Which clinical symptoms characteristic chronic disseminated tuberculosis?
32. Complications, characteristic chronic disseminated tuberculosis.
33. X-ray signs chronic disseminated tuberculosis.

Questions By topic classes, removable on exam.

- 1 Secondary tuberculosis, clinical forms. Features of pathogenesis and diagnostics
- 2 Clinic, diagnostics, differential diagnostics And treatment miliary tuberculosis lungs.
- 3 Clinic, diagnosis, differential diagnosis and treatment disseminated tuberculosis lungs.
- 4 Pathogenesis, clinic, differential diagnostics tuberculosis meningitis.

Class No. 8.1.

Subject classes : Focal tuberculosis lungs. Clinic, diagnostics, differential diagnosis, outcomes.

Place carrying out : educational audience departments phthisiopulmonology.

Target classes : Assimilate pathogenesis, pathological anatomy, clinic, diagnostics, differential diagnostics, outcomes focal tuberculosis lungs. Learn recognize specified form tuberculosis, justify And Right formulate a diagnosis.

Molded competencies: defense industry - 1,4,6,8,9,10,11, PC - 1,5,6,8,9,11,20,21,22

Plan practical classes

Basic stages	Form carrying out	Time, min.	Equipment
1. Focal tuberculosis lungs. Clinic, diagnostics, differential diagnostics, outcomes.	Interview	100	Tables on this topic
2. Clinical parsing sick By topic classes.	Report student, discussion	35	Disease history sick focal tuberculosis lungs
3. Curation (bypass) sick.	IndependentJob	60	Case histories supervised patients, department GBUZ RKTSFP
4. Description radiographs sick focal pulmonary tuberculosis and solution situational tasksBy topic classes.	IndependentJob	thirty	Kit radiographs, situational tasks By topic classes
5. Summing up results	Summary teacher	10	Homemade exercise

Methodical security independent works:

1. Stories diseases supervised sick.
2. Kit radiographs By focal tuberculosis.
3. Scheme descriptions pathological shadows at main X-raysyndromes diseases lungs.
4. Scheme share And segmental buildings lungs V X-raydisplay.
5. Kit situational tasks By diagnostics focal tuberculosis.

IN result studying Topics at students must form followingknowledge And skills.

Student must know :

1. Pathogenesis And pathological anatomy focal tuberculosis lungs.
2. Clinical signs focal tuberculosis.
3. X-ray picture at soft- And fibrous-focal tuberculosis.
4. Laboratory And bronchological diagnostics at focal tuberculosis.
5. Signs activity tuberculosis process.

6. Organization active identifying focal tuberculosis.
7. Outcomes focal tuberculosis.

Student must be able to :

1. Actively identify focal tuberculosis lungs at fluorographic inspection population.
2. Carry out a diagnostic examination if there is a suspicion of focal tuberculosis V in accordance with the standard.
3. On basis evidentiary data examinations justify And Right formulate a diagnosis focal tuberculosis.
4. Conduct differential diagnostics focal tuberculosis With focal bronchopneumonia.

Questions For self-preparation for occupation:

1. Frequency focal tuberculosis By attitude To others forms pulmonary tuberculosis.
2. IN how is pathogenesis focal tuberculosis?
3. Pathological anatomy focal tuberculosis.
4. Clinical and radiological forms focal tuberculosis.
5. Name clinical signs focal tuberculosis.
6. Laboratory diagnostics focal tuberculosis.
7. Tuberculin sensitivity at focal tuberculosis.
8. X-ray changes, characteristic focal tuberculosis.
9. IN how is difference soft- And fibrous-focal tuberculosis?
10. Which phases process characterize acute flow focal tuberculosis?
11. Which phases characterize processes healing at focal tuberculosis?
12. Name signs activity tuberculosis process.
13. Which method used For timely identifying tuberculosis at massive examinations?
14. Which outcomes observed at focal tuberculosis?
15. WITH what diseases should differentiate focal tuberculosis?

Questions By topic classes, removable on exam.

- 1 Clinic, diagnosis, differential diagnosis and treatment of focal tuberculosis lungs.

Class No. 8.2.

Subject classes : Infiltrative tuberculosis lungs. Caseous pneumonia. Clinic, diagnostics, differential diagnosis, outcomes.

Place carrying out : educational audience departments phthysiopulmonology.

Target classes : Assimilate pathogenesis, pathological anatomy, clinic, diagnostics, differential diagnostics, outcomes infiltrative tuberculosis lungs And caseous pneumonia. Teach students recognize specified forms tuberculosis, justify And correctly formulate the diagnosis.

Molded competencies: defense industry - 1,4,6,8,9,10,11, PC - 1,5,6,8,9,11,20,21,22

Plan practical classes

Basic stages	Form carrying out	Time, min.	Equipment
1. Infiltrative tuberculosis lungs. Caseous pneumonia. Clinic, diagnostics, differential diagnostics, outcomes.	Interview	100	Tables by topic classes
2. Clinical parsing sick By topic classes.	Report student, discussion	35	Disease history sick infiltrative tuberculosis lungs
3. Curation (bypass) sick.	IndependentJob	20	Case histories supervised patients, department GBUZ RKTSFP
4. Description radiographs patients with infiltrative pulmonary tuberculosis, caseous pneumonia And solution situational tasksBy topic classes.	IndependentJob	40	Kit radiographs, situational tasks on the topic classes
5. Summing up results.	Summary teacher	9	Homemade exercise

Methodical security independent works:

1. Stories diseases supervised sick.
2. Kit radiographs By infiltrative tuberculosis And caseous pneumonia.
3. Schemes for describing pathological shadows of the main radiological syndromes diseases lungs.
4. X-ray diagram of the lobar and segmental structure of the lungs display.
5. Kit situational tasks By diagnostics infiltrative tuberculosis Andcaseous pneumonia.

IN result studying Topics must be formed following knowledge Andpractical skills.

Student must know :

1. Pathogenesis And pathological anatomy infiltrative tuberculosis.
2. Clinical and radiological forms infiltrative tuberculosis (bronchlobular , round, cloudy infiltrates, periscissuritis , lobits , caseous pneumonia).
3. Clinical signs infiltrative tuberculosis lungs.
4. Laboratory And bronchological diagnostics infiltrative tuberculosis.
5. X-ray diagnostics infiltrative tuberculosis.
6. Phases currents at infiltrative tuberculosis And their characteristics.

Student must be able to :

1. Conduct a diagnostic examination if infiltrative tuberculosis lungs And caseous pneumonia V compliance with standard.
2. On basis evidentiary data clinical and radiological, laboratory And bronchological examinations justify And Right formulate a diagnosis infiltrative tuberculosis.
3. Conduct differential diagnostics infiltrative tuberculosis lungs And caseous pneumonia With nonspecific inflammatory processes.

Questions For self-preparation for occupation:

1. Frequency infiltrative tuberculosis By attitude To others formspulmonary tuberculosis.
2. Pathogenesis infiltrative tuberculosis.
3. Pathological anatomy infiltrative tuberculosis.
4. Clinical and radiological forms infiltrative tuberculosis.
5. Name clinical signs at infiltrative tuberculosis.
6. Laboratory diagnostics infiltrative tuberculosis.
7. Tuberculin sensitivity at infiltrative tuberculosis.
8. X-ray changes at infiltrative tuberculosis.
9. which phases process characterize his acute flow And healing?
10. Name signs, confirming phase decay.
11. Which outcomes observed at infiltrative tuberculosis?
12. Name basic differential diagnostic differences focal Andinfiltrative tuberculosis.
13. What diseases should infiltrative be differentiated from ? tuberculosis.
14. IN how are concluded basic differences infiltrative tuberculosis fromnonspecific pneumonia?

Questions By topic classes, removable on exam.

- 1 Clinic, diagnosis, differential diagnosis and treatment infiltrative tuberculosis lungs.
- 2 Clinic, diagnosis, differential diagnosis and treatment of caseous pneumonia.

Class No. 8.3.

Subject classes : Tuberculoma lungs. Clinic, diagnostics, differential diagnostics, outcomes.

Place carrying out : educational audience departments phthisiopulmonology.

Target classes : Assimilation students pathogenesis, pathological anatomy, clinics, diagnostics, differential diagnosis, tuberculoma outcomes. Learn recognize the indicated form of tuberculosis, justify and correctly formulate diagnosis.

Molded competencies: defense industry - 1,4,6,8,9,10,11, PC - 1,5,6,8,9,11,20,21,22

Plan practical classes

Basic stages	Form carrying out	Time, min.	Equipment
1. Tuberculoma lungs. Clinic, diagnostics, differential diagnostics, outcomes.	Interview	100	Tables by topic classes
2. Clinical parsing sick By topic classes.	Report student, discussion	35	Disease history sick tuberculoma lungs
3. Curation (bypass) sick.	Independent Job	20	Case histories supervised patients, department GBUZ RKTSFP
4. Description radiographs sick tuberculoma lungs And solution situational tasks By topic classes.	Independent Job	40	Kit radiographs, situational tasks on the topic classes
5. Summing up results.	Summary teacher	9	Homemade exercise

Methodical security independent works:

1. Stories illnesses, sheets appointments supervised sick.
2. Kit radiographs patients with tuberculoma lungs.
3. Scheme for describing pathological shadows of the main radiological syndromes diseases lungs.
4. X-ray diagram of the lobar and segmental structure of the lungs display.
5. Kit situational tasks By diagnostics tubercle lungs.

IN result classes at students must be formulated following knowledge And practical skills.

Student must know :

1. Pathogenesis And pathological anatomy tuberculomas .
2. Clinical signs tuberculomas .
3. Laboratory diagnostics tuberculosis.
4. X-ray signs tuberculosis.

5. Characteristics tubercle at different phases their currents.
6. Outcomes tuberculosis.

Student must be able to :

1. pulmonary tuberculoma is suspected V in accordance with the standard.
2. On basis evidentiary data clinical and radiological, laboratory And bronchological examinations justify And Right formulate a diagnosis tuberculomas .
3. Conduct differential diagnostics "round shadows" V lungs (tuberculoma , round infiltrate, peripheral cancer, benign tumor, filled cyst).

Questions For self-training To activities:

1. Frequency tubercle among first identified forms tuberculosis.
2. Pathogenesis tubercle lungs.
3. Pathomorphological types tuberculosis.
4. Name clinical signs tuberculomas V stages remission.
5. Name clinical signs tuberculomas V stages exacerbations.
6. Laboratory diagnostics tubercle V stages exacerbations.
7. X-ray signs tuberculosis.
8. IN what parts of the lungs more often are localized tuberculomas ?
9. IN how peculiarities process disintegration at tuberculomas ?
10. WITH what diseases should differentiate tuberculoma ?
11. IN how are concluded basic differences tuberculomas from peripheral cancer lung? benign tumors? filled out cysts?
12. Outcomes tuberculosis.

Questions By topic classes, removable on exam.

- 1 Clinic, diagnostics, differential diagnostics And treatment tuberculomas lungs.

Class No. 9.1.

Topic of the lesson : The concept of destructive tuberculosis. Cavernous and fibrous cavernous tuberculosis. Clinic, diagnostics, differential diagnostics, outcomes.

Place carrying out : educational audience departments phthisiopulmonology.

Target classes : Assimilation students pathogenesis, pathological anatomy, clinics, diagnostics differential diagnostics outcomes cavernous And fibrous-cavernous tuberculosis. Learn to recognize these forms of tuberculosis, justify and correctly formulate the diagnosis.

Molded competencies: defense industry - 1,4,6,8,9,10,11, PC - 1,5,6,8,9,11,20,21,22

Plan practical classes

Basic stages	Form carrying out	Time, min.	Equipment
1. The concept of destructive tuberculosis. Cavernous and fibrocavernous tuberculosis. Clinic, diagnostics, differential diagnostics, outcomes.	Interview	100	Tables by topic classes
2. Clinical parsing sick By topic classes.	Report student, discussion	35	Disease history sick cavernous, fibrous- cavernous tuberculosis lungs
3. Curation (bypass) sick.	Independent Job	20	Case histories supervised patients, department GBUZ RKTSFP
4. Description radiographs patients with cavernous fibrous-cavernous tuberculosis lungs and solution situational tasks By topic classes.	Independent Job	40	Kit radiographs, situational tasks on the topic classes
5. Summing up results.	Summary teacher	9	Homemade exercise

Methodical security independent works:

1. Stories illnesses supervised sick.
2. A set of radiographs of patients with fibrous fibrous-cavernous tuberculosis.
3. Scheme descriptions pathological shadows at basic radiology syndromes diseases lungs.
4. A set of situational tasks for the diagnosis of cavernous and fibrous cavernous tuberculosis.

As a result of the lesson, students should develop the following knowledge and practical skills.

Student must know :

1. Pathogenesis And pathological anatomy cavernous And fibrous-cavernous tuberculosis.
2. Clinical signs cavernous And fibrous-cavernous tuberculosis.
3. Laboratory diagnostics And X-ray signs considered forms tuberculosis.
4. Basic complications fibrous-cavernous tuberculosis (pulmonary bleeding, respiratory failure, chronic pulmonary heart, amyloidosis, spontaneous pneumothorax).
5. Basic differences cavernous And fibrous-cavernous tuberculosis.
6. Outcomes considered forms tuberculosis.

Student must be able to :

1. Conduct diagnostic examination at suspicion on cavernous And fibrocavernous tuberculosis lungs V compliance with standard.
2. On basis evidentiary data clinical and radiological, laboratory And bronchological examinations justify And Right formulate diagnosis cavernous And fibrous-cavernous tuberculosis.
3. Carry out differential diagnosis of destructive forms of tuberculosis with nonspecific cavity formations lungs.

Questions For self-preparation for occupation:

1. Frequency cavernous And fibrous-cavernous tuberculosis among first identified forms of tuberculosis lungs.
2. Pathogenesis cavernous And fibrous-cavernous tuberculosis.
3. Structure caverns at cavernous tuberculosis.
4. Morphological differences phases disintegration various forms pulmonary tuberculosis.
5. Morphological characteristics of fibrous-cavernous cavernous tuberculosis.
6. Pathological changes V lungs at fibrous-cavernous tuberculosis.
7. Clinical painting at cavernous and fibrous-cavernous tuberculosis.
8. Laboratory diagnostics for fibrous-cavernous and cavernous tuberculosis.
9. X-ray and bronchological diagnostics of cavernous and fibrous-cavernous tuberculosis lungs.
10. Highlight basic differences cavernous And fibrous-cavernous tuberculosis lungs.
11. Name complications, characteristic fibrous-cavernous tuberculosis.
12. WITH what diseases should differentiate cavernous And fibrous-cavernous pulmonary tuberculosis?
13. Outcomes cavernous And fibrous-cavernous tuberculosis lungs.

Questions By topic classes, removable on exam.

- 1 Chronic destructive forms. Peculiarities pathogenesis, clinical forms.
- 2 Clinic, diagnostics, differential diagnostics And treatment cavernous tuberculosis lungs
- 3 Clinic, diagnostics, differential diagnostics And treatment fibrous-cavernous tuberculosis lungs.

Class No. 9.2.

Subject classes : Cirrhotic tuberculosis lungs. Clinic, diagnostics, differential diagnostics, outcomes. Tuberculosis lungs, combined With dusty professional diseases lungs (silicotuberculosis).

Place carrying out : educational audience departments phthiisopulmonology.

Target classes : Assimilation students pathogenesis, pathological anatomy, clinics, diagnostics differential diagnostics outcomes cirrhotic tuberculosis lungs And silicotuberculosis. Learn justify And Right formulate a diagnosis cirrhotic tuberculosis And silicotuberculosis.

Molded competencies: defense industry - 1,4,6,8,9,10,11, PC - 1,5,6,8,9,11,20,21,22

Plan practical classes

Basic stages	Form carrying out	Time, min.	Equipment
1. Cirrhotic tuberculosis lungs. Clinic, diagnostics, differential diagnosis, outcome s. tuberculosis combined with dusty professional lung diseases (silicotuberculosis).	Interview	100	Tables by topic classes
2. Clinical parsing sick By topic classes.	Report student, discussion	35	Disease history sick cirrhotic tuberculosis lungs
3. Curation (bypass) sick.	Independent Job	20	Case histories supervised patients, department GBUZ RKTSFP
4. Description radiographs patients with cirrhotic tuberculosis lungs And solution situational tasks By topic classes.	Independent Job	40	Kit radiographs, situational tasks on the topic classes
5. Summing up results.	Summary teacher	9	Homemade exercise

Methodical security independent works:

1. Stories diseases supervised sick.
2. Set of X-ray patients with cirrhotic tuberculosis and sick silicotuberculosis.
3. Scheme for describing pathological shadows with the main X-ray syndromes lung diseases.
4. A set of situational tasks for diagnosing cirrhotic tuberculosis and silicotuberculosis.

As a result of the lesson, students should develop the following knowledge and practical skills.

Student must know :

1. Pathogenesis And pathological anatomy cirrhotic tuberculosis lungs And silicotuberculosis.
2. Clinical signs cirrhotic tuberculosis And silicotuberculosis.
3. Laboratory diagnostics And X-ray signs cirrhotictuberculosis and silicotuberculosis.
4. Outcomes considered forms tuberculosis.

Student must be able to :

1. Conduct diagnostic examination at suspicion on cirrhotic tuberculosis lungs And silicotuberculosis V compliance with standard.
2. On basis evidentiary data clinical and radiological, laboratory And bronchological research justify And Right formulate diagnosis cirrhotic tuberculosis And silicotuberculosis.
3. Conduct differential diagnosis of silicotuberculosis with silicosis and disseminated tuberculosis lungs.
4. Conduct differential diagnostics cirrhotic tuberculosis And pneumofibrosis non-tuberculous etiology.

Questions For self-preparation for occupation:

1. Definition cirrhosis lungs.
2. Difference cirrhosis from pneumosclerosis.
3. Difference cirrhosis from cirrhotic tuberculosis.
4. From what forms tuberculosis Maybe develop cirrhotic tuberculosis?
5. Clinical painting at cirrhotic tuberculosis.
6. X-ray signs cirrhotic tuberculosis.
7. Which complications characteristic cirrhotic tuberculosis lungs?
8. What are the differences between cirrhotic tuberculosis and fibrous tuberculosis ?cavernous tuberculosis?
9. Indications To specific therapy at cirrhotic tuberculosis lungs.
10. Indications To operational treatment at cirrhotic tuberculosis.
11. In which registration group should patients with cirrhotic disease be observed? tuberculosis?
12. Definition pneumoconiosis.
13. Kinds pneumoconiosis.
14. What is etiological factor silicosis?
15. Stages silicosis.
16. From what reasons depends frequency complications silicosis tuberculosis?
17. Which disease called Silicotuberculosis?
18. Structure silicotic granulomas .
19. Pathomorphological changes at silicotuberculosis.
20. Clinical painting at silicotuberculosis.
21. X-ray diagnostics silicotuberculosis.
22. What are the differences between silicotuberculosis and disseminated tuberculosis lungs?
23. IN how are concluded differences silicosis from silicotuberculosis?
24. Forecast at silicotuberculosis.

Questions By topic classes, removable on exam.

- 1 Clinic, diagnostics, differential diagnostics And treatment cirrhotic tuberculosis lungs.
- 2 Silicotuberculosis. Pathogenesis, clinic, differential diagnostics And treatment.

Class 10.

Topic of the lesson : Tuberculous pleurisy. Clinic, diagnostics, differential diagnostics, outcomes.

Place carrying out : educational audience departments phthisiopulmonology.

Target classes : Assimilation students pathogenesis, pathological anatomy, clinics, diagnostics differential diagnostics outcomes tuberculosis pleurisy. Learn to substantiate and correctly formulate the diagnosis of tuberculosis pleurisy.

Molded competencies: defense industry - 1,4,6,8,9,10,11, PC - 1,5,6,8,9,11,20,21,22

Plan practical classes

Basic stages	Form carrying out	Time, min.	Equipment
1. Tuberculous pleurisy. Clinic, diagnostics, differential diagnostics, outcomes.	Interview	100	Tables by topic classes
2. Clinical parsing sick By topic classes.	Report student, discussion	35	Disease history sick tuberculosis pleurisy
3. Curation (bypass) sick.	IndependentJob	20	Case histories supervised patients, department GBUZ RKTSFP
4. Description of radiographs patients with tuberculosis pleurisy and solution situational tasks By topic classes.	IndependentJob	40	Kit radiographs, situational tasks on the topic classes
5. Summing up results.	Summary teacher	9	Homemade exercise

Methodical security independent works:

1. Stories diseases, sheets appointments supervised sick.
2. Kit radiographs By tuberculosis pleurisy.
3. Scheme descriptions pathological shadows at main X-raysyndromes diseases lungs.
4. Scheme share And segmental buildings lungs V X-raydisplay.
5. Kit situational tasks By diagnostics tuberculosis pleurisy.

As a result of the lesson, students should develop the following knowledge and practical skills.

Student must know :

1. Pathogenesis And pathological anatomy tuberculosis pleurisy.
2. Clinical signs tuberculosis pleurisy.
3. Laboratory diagnostics at tuberculosis pleurisy.

4. X-ray diagnostics tuberculosis pleurisy.
5. Indications For punctures pleural cavities.
6. Methodology punctures pleural cavities.
7. Outcomes tuberculosis pleurisy.

Student must be able to :

1. Conduct diagnostic examination at suspicion on tuberculous pleurisy according with the standard.
2. On basis evidentiary data clinical and radiological, laboratory tests, substantiate and correctly formulate the diagnosis tuberculosis pleurisy.
3. Define readings For punctures pleural cavities.
4. Differentiate By results research pleural effusion transudate And exudate
5. Conduct differential diagnostics tuberculosis pleurisy With pneumonic, rheumatic pleurisy And malignant process Vpleura.

Questions For self-preparation for occupation:

1. Etiology pleurisy.
2. Paths involvement pleura V inflammatory process.
3. What kind of pleurisy is called allergic? perifocal ? tuberculosis pleura? empyema?
4. Pathomorphological changes pleura at tuberculosis pleurisy.
5. Mechanism education effusion V pleural cavities.
6. Clinical painting dry pleurisy.
7. Clinical painting exudative pleurisy with free locationliquid in pleural cavity.
8. Clinical peculiarities encysted pleurisy.
9. X-ray diagnostics tuberculosis pleurisy.
10. Indications For diagnostic punctures pleural cavities.
11. Methodology punctures pleural cavities.
12. Laboratory diagnostics pleurisy.
13. How is different transudate from exudate?
14. Indications For medicinal punctures pleural cavities.
15. Methodology medicinal punctures pleural cavities.
16. Outcomes tuberculosis pleurisy.
17. The main differential diagnostic differences of tuberculous pleurisy from pleurisy nonspecific etiology (pneumonic, rheumatic, pleurisy for malignant defeat pleura).

Questions By topic classes, removable on exam.

- 1 Complications tuberculosis lungs. Clinic And diagnostics.
- 2 Pathogenesis, clinic, diagnostics, differential diagnostics And treatment pleurisy tuberculosis etiology.
- 3 Pathogenesis, clinic, diagnostics And treatment empyema pleura.
- 4 Tuberculosis pleura. Clinic, diagnostics And treatment.

Class No. 11.

Lesson topic : Complications of respiratory tuberculosis: hemoptysis, pulmonary bleeding, spontaneous pneumothorax. Tuberculosis V combination With others diseases. Tuberculosis and pregnancy.

Place carrying out : educational audience departments phthisiopulmonology.

Target classes : Assimilate pathogenesis, clinic and treatment hemoptysis, pulmonary bleeding, spontaneous pneumothorax in tuberculosis. Learn to diagnose specified complications And render urgent help. Explore organization detection, clinical features, diagnosis, tactics of observation and treatment of patients when tuberculosis is combined with other diseases and conditions (diabetes mellitus, HIV infection, HNZZ, defeats liver, alcoholism, pregnancy).

Molded competencies: defense industry - 1,4,6,8,9,10,11, PC - 1,5,6,8,9,11,20,21,22

Plan practical classes

Basic stages	Form carrying out	Time, min.	Visual benefits
1. Complications of tuberculosis respiratory organs: hemoptysis, pulmonary bleeding, spontaneous pneumothorax. Tuberculosis in combination With others diseases. Tuberculosis And pregnancy.	Interview	135	Tables By topic
2. Clinical analysis of the patient With pulmonary bleeding.	IndependentJob	10	Disease history patient with pulmonary bleeding
3. Description radiographs patients with spontaneous pneumothorax.	IndependentJob	10	Kit radiographs
4. Clinical analysis of the patient with spontaneous pneumothorax.	IndependentJob	10	Disease history patient with spontaneous pneumothorax
5. Written test according to topics of the second module (clinical forms tuberculosis lungs, complications).	IndependentJob	thirt y	Kit tests
6. Summing up results	Summary teacher	9	Homemade exercise

Methodical security independent works:

1. Educational tables illustrating the complications of pulmonary tuberculosis: hemoptysis, pulmonary bleeding, spontaneous pneumothorax.
2. Kit radiographs patients with spontaneous pneumothorax.
3. Stories illnesses supervised sick.
4. Radiographs sick With combination tuberculosis With others diseases.

5. Stories illnesses sick With combination tuberculosis lungs With others diseases and pregnancy.
6. A set of tests on the topics of the second module (clinical forms of pulmonary tuberculosis, complications).

As a result of practical training, the student should develop following knowledge and skills.

Student must know :

1. Pathogenesis of hemoptysis, pulmonary hemorrhage, spontaneous pneumothorax at tuberculosis organs breathing.
2. Clinic And diagnostics hemoptysis, pulmonary bleeding, spontaneous pneumothorax.
3. Rendering urgent help at hemoptysis, pulmonary bleeding And spontaneous pneumothorax.
4. Pathogenetic preconditions development tuberculosis at sugar diabetes, ulcerative illnesses stomach And duodenum intestines, chronic alcoholism, HIV infections.
5. Clinical features of the combination of tuberculosis with diabetes mellitus, ulcerative illness, chronic alcoholism, HIV infection.
6. Pathogenetic prerequisites for the development of pulmonary tuberculosis during pregnancy and V postpartum period.
7. Peculiarities clinics, diagnostics And treatment at tuberculosis And pregnancy.
8. Organization of timely detection of tuberculosis in groups of "increased risk."

Student must be able to:

1. Recognize on basis evidentiary data examinations hemoptysis, pulmonary bleeding, spontaneous pneumothorax.
2. Render urgent help at hemoptysis, pulmonary bleeding And spontaneous pneumothorax V in accordance with the standard.
3. Conduct observation groups "increased risk" diseases tuberculosis.
4. Conduct diagnostic examination on tuberculosis at combination his With sugar diabetes, ulcerative illness, chronic alcoholism, pregnancy and AIDS.

Questions For self-preparation for occupation:

1. What called hemoptysis, pulmonary bleeding?
2. Pathogenesis hemoptysis And pulmonary bleeding.
3. How distinguish pulmonary bleeding from gastric?
4. How distinguish pulmonary bleeding from bleeding from upper respiratoryways?
5. How dangerous pulmonary bleeding?
6. Signs aspiration pneumonia.
7. On what principles is based help at pulmonary bleeding?
8. Medicines used to stop pulmonary bleeding?
9. What collapse therapeutic interventions are used to stop pulmonary bleeding?
10. Indications To surgical treatment at pulmonary bleeding.
11. What understand under spontaneous pneumothorax?
12. Causes spontaneous pneumothorax.
13. Kinds spontaneous pneumothorax.

14. Clinical symptoms spontaneous pneumothorax.
15. X-ray data at spontaneous pneumothorax.
16. Meaning manometry pleural cavities at spontaneous pneumothorax.
17. Emergency help sick with spontaneous pneumothorax on prehospital stage and in hospital.
18. How often meets tuberculosis at sugar diabetes, ulcerative illnesses, chronic alcoholism, pregnancy, HIV?
19. IN how are concluded pathogenetic preconditions frequent combinations tuberculosis With sugar diabetes, ulcerative illness, chronic alcoholism, pregnancy, HIV - infection?
20. IN how are concluded clinical peculiarities at combination tuberculosis With indicated higher diseases and pregnancy?
21. How observed groups "increased risk" diseases tuberculosis?
22. Peculiarities diagnostic examinations on tuberculosis at pregnancy.

Questions By topic classes, removable on exam

- 1 Hemoptysis. Clinic, diagnostics And treatment.
- 2 Pulmonary bleeding. Clinic, diagnostics And treatment.
- 3 Atelectasis lung at tuberculosis. Pathogenesis, diagnostician And treatment.
- 4 Spontaneous pneumothorax. Kinds. Clinic, diagnostics And treatment.
- 5 Tuberculosis And sugar diabetes.
- 6 Tuberculosis And ulcerative disease stomach And duodenum intestines.
- 7 Tuberculosis And pregnancy. Tuberculosis And motherhood.
- 8 Tuberculosis And cancer lungs.
- 9 Tuberculosis And HIV - infection.

Class No. 12.

Topic of the lesson : Modern methods and principles of treating patients with tuberculosis lungs. Criteria cure tuberculosis. Expertise disability at tuberculosis.

Place carrying out : educational audience departments phthiopulmonology.

Purpose of the lesson : Students will learn basic modern principles and methods treatment sick tuberculosis lungs. Teach determine readings For temporal disability, A Also For directions on MSEC. Explore groups disability.

Formed competencies: defense industry -
1,4,6,8,9,10,11, PC -
1,2,3,4,5,6,7,8,9,10,11,14,15,16,17,18,20,21,22

Plan practical classes

Basic stages	Form carrying out	Time, min	Equipment
1. Modern methods and principles of patient treatment pulmonary tuberculosis. Criteria cure tuberculosis. Expertise incapacity for work tuberculosis.	Interview	144	Educational tables
2. Supervision of patients, justification tactics treatment.	Independent Job	10	Case histories supervised patients, department GBUZ RKTSFP
3. Work in the collapse therapy room .	Independent Job	20	Equipment office collapse therapy GBUZ RKTSFP
4. Final testing.	Independent Job	thirty	Kit tests

Methodical security independent works:

1. Educational tables By treatment tuberculosis.
2. Stories illnesses supervised sick and appointment sheets.
3. Equipment pneumothorax office. Pneumothorax apparatus.
4. Kit tests For carrying out final testing.

As a result of practical training, the student should develop following knowledge and skills.

Student must know :

1. Antituberculosis drugs: basic And reserve.
2. Basic principles chemotherapy.
3. Complications chemotherapy.
4. Methodology carrying out, readings And contraindications at collapse therapy (artificial pneumothorax and pneumoperitoneum).
5. Kinds operational interventions at tuberculosis lungs. Indications To their application.
6. Indications And contraindications To direction sick V anti-tuberculosis sanatorium.

7. Solution questions temporal disability at tuberculosis. Deadlines readings For directions sick on MSEC. Groups disability.

Student must be able to :

1. Assign anti-tuberculosis drugs For treatment And chemoprophylaxis tuberculosis V in accordance with the standard.
2. Define readings And contraindications.
3. Define readings For surgical treatment.
4. Determine indications and contraindications for referring patients to sanatorium institutions.
5. Issue a sick leave certificate for a patient with pulmonary tuberculosis. Define readings For temporal incapacity for work tuberculosis lungs.
6. Design messenger sheet on MSEC. Define readings For directions sick tuberculosis lungs on MSEC.

Questions By topic classes, removable on exam

- 1 Basic methods And principles comprehensive treatment tuberculosis.
- 2 Standard modes modern etiotropic therapy tuberculosis.
- 3 Antituberculosis drugs, classification.
- 4 Side effects reactions at use anti-tuberculosis drugs, methods eliminating them And prevention.
- 5 Pathogenetic therapy tuberculosis.
- 6 Collapse therapy for pulmonary tuberculosis: artificial pneumothorax pneumoperitoneum .
- 7 Physiotherapeutic methods V treatment tuberculosis organs breathing.
- 8 Surgical treatment tuberculosis organs breathing. Indications.
- 9 Sanatorium-resort treatment tuberculosis respiratory organs.