Lviv National Medical University
Named by Danylo Halytsky
Department of Phthisiology and Pulmonology

"Approved"

The first vise-rector of scientific- pedagogical work
prof. M.R.Gzhegockiy
«17» 09 2021

EXECUTABLE CODE OF EDUCATIONAL DISCIPLINE

PHTHISIOLOGY

Speciality - 7.12010001 medical practice
7.12010002 paediatrics
7.12010003 medikal profilaktic practice

Faculty, course, - medical, V

Discussed and accepted
disciplines
on meeting of Department
of phthisiology and
pulmonology
Protocol №1 from 2021

Chief of Department
Prof. Kostyk O.P.

Ratified a methodical commission of therapeutic

Head of methodical commission
Prof. Radchenko O.M.
Protocol № «6» 16.9 2021

2021

INTRODUCTION

Program of study of the discipline "Tuberculosis"
according to the Standard of higher education of the second (master's) level
field of knowledge 22 "Health"
specialty 222 "Medicine"
educational program of master of medicine

Annotation to the course

The discipline “Phthisiology” is a mandatory component of the educational and professional training program for masters of medicine. Students study epidemiology, methods of timely detection and diagnosis, clinical and diagnostic signs of tuberculosis, basic principles of treatment of patients with tuberculosis, tuberculosis prevention and infection control measures; improve the ability to interview and objectively examine the patient, interpret the data of laboratory and instrumental studies, formulate a clinical diagnosis, prescribe treatment, provide emergency medical care.

Structure of educational disciplines	Amount of credits, hours, from them				A year of studies , semester	Type of co ntrol
	All	**Аудиторних**		**СРС**		
		Lectur es	Practical clases			
Module: Phthisiology Semantic modules 5	**2** loans **ECTS/ 60 hours**	**10**	**30**	**20**	**5** course **(IX** or X Semesters)	differentiat ed offset

The subject of study of the discipline are:
- epidemiology of tuberculosis, methods of timely detection and diagnosis of tuberculosis;
- clinical and diagnostic signs of tuberculosis;
- basic principles of treatment of patients with tuberculosis;
- tuberculosis prevention and infection control measures.

Interdisciplinary connections.
Tuberculosis as a discipline:
- is based on the study of anatomy, physiology, pathomorphology, pathophysiology, microbiology, pharmacology, propaedeutics of internal medicine, propaedeutics of pediatrics, radiology, hygiene and ecology, epidemiology and integrates with these disciplines;
- involves the relationship with the following disciplines: internal medicine, surgery, pediatrics, neurology, infectious diseases, pediatric infectious diseases, oncology and

develops the ability to apply knowledge of tuberculosis in further education and professional activities.

1. Aim and task of educational discipline

1.1 The purpose of the discipline is the acquisition of basic knowledge of phthysiology by students, mastering modern diagnostic methods, differential diagnosis, treatment, tuberculosis prevention, professional skills and practical skills.

1.2. The main tasks of studying the discipline "Tuberculosis" are:
- to determine the risk factors for tuberculosis;
-interpret the results of tuberculin tests, bacteriological methods of sputum research;
-determine clinical forms of tuberculosis and formulate a clinical diagnosis according to the classification;
- to make the scheme of inspection of the patient with tuberculosis, to analyze the received data;
- prescribe standard treatment regimens for patients with respiratory tuberculosis;
- to determine the consequences of treatment of patients with respiratory tuberculosis;
- diagnose emergencies in patients with tuberculosis and provide them with emergency care.

1.3 Competences and learning outcomes, the formation of which is facilitated by the discipline (relationship with the normative content of training of higher education, formulated in terms of learning outcomes in the Standard of Higher Education).

Integral competence - the ability to apply the acquired general and professional competencies to solve complex problems of professional activity of a doctor and practical problems in the field of health care in the relevant position, the scope of which is provided by lists of syndromes and symptoms of diseases, emergencies and diseases requiring special tactics. patient management; laboratory and instrumental research, medical manipulations; issues of labor, forensic and military expertise and / or innovation.

-General:
GC1 – Ability to abstract thinking, analysis and synthesis.
GC2 – Ability to to learn and master modern knowledge.
GC3 – Ability to apply knowledge in practical situations.
GC4 – Knowledge and understanding of the subject area and understanding of professional activity.
GC5 – Ability to adapt and act in a new situation.
GC6 – Ability to make informed decisions.
GC7 – Ability to work in a team.
GC8 – Interpersonal skills.
GC9 – Ability to communicate in the state language both orally and in writing.
GC10 – Ability to communicate in a foreign language.
GC11 – Skills in the use of information and communication technologies.
GC12 – Definiteness and perseverance in terms of tasks and responsibilities.
GC13 – Ability to act socially responsibly and consciously.

GC14 – The desire to preserve the environment.
GC15 – Ability to act on ethical considerations.

-Special (professional, subject):
SC1 – Skills of interviewing and clinical examination of the patient.
SC2 – Ability to determine the required list of laboratory and instrumental studies and evaluate their results.
SC3 – Ability to establish preliminary and clinical diagnoses of tuberculosis.
SC4 – Ability to determine the required mode of work and rest in the treatment of tuberculosis.
SC5 – Ability to determine the nature of nutrition in the treatment of tuberculosis.
SC6 – Ability to determine the principles and nature of tuberculosis treatment.
SC7 – Ability to diagnose of emergency conditions.
SC8 – Ability to determine the tactics of emergency medical care.
SC9 – Emergency care skills.
SC11 – Skills to perform medical manipulations.
SC13 – Ability to carry out sanitary and hygienic and preventive measures.
SC14 – Ability to plan and carry out preventive and anti-epidemic measures against infectious diseases.
SC15 – Ability to determine the tactics of management of persons subject to dispensary supervision.
SC16 – Ability to conduct a performance examination.
SC17 – Ability to keep medical records.

4. Course details

4. Course details
The student needs basic knowledge and learning outcomes of the following disciplines to successfully study and master the competencies of the discipline “Phthisiology”: • human anatomy - know the anatomy of the respiratory system; • physiology - to know the physiology of the respiratory system; • pathomorphology - to know pathomorphological changes of organs at tuberculosis; • pathophysiology - to know the pathophysiology of the respiratory system; • microbiology - to know the morphological structure, properties, pathogenicity and virulence of Mycobacterium tuberculosis, methods of their detection in sputum and other materials, to be able to collect material for bacteriological examination, to evaluate the results; • pharmacology - to know antimycobacterial drugs, mechanisms of action, side effects, to be able to prescribe them to the patient; • propaedeutics of internal medicine - to know the method of questioning and

objective examination of the patient, to be able to collect medical history and examine the patient, evaluate the data obtained;

- propaedeutics of pediatrics - to know the method of questioning and objective examination of the child, to be able to collect anamnesis and examine the child;
- radiology - to know the radiological features of the chest in normal and pathological conditions, radiological symptoms and syndromes, to be able to detect and interpret radiological events in the lungs;
- internal medicine - to know the clinical manifestations, X-ray semiotics of diseases of the respiratory system, to be able to conduct a differential diagnosis of respiratory diseases;
- hygiene and ecology - to know methods of disease prevention;
- epidemiology - to know the links of the epidemiological process (source of infection, ways of infection transmission, susceptibility of the organism).

5. Program learning outcomes

1. 1. Collect data on patient complaints, medical history, life history, conduct and evaluate the results of physical examination.
2. Evaluate information about the diagnosis in the hospital, using a standard procedure based on the results of laboratory and instrumental studies.
3. Highlight the leading clinical symptom or syndrome. Establish the most probable or syndromic diagnosis of the disease. To carry out differential diagnosis of diseases. To establish the clinical diagnosis according to classification.
4. Determine the necessary mode of work and rest, the nature of nutrition in the treatment of tuberculosis.
5. Determine the principles and nature of treatment (conservative, operative) disease.
6. Determine the tactics of emergency medical care based on the diagnosis of emergency.
7. Provide emergency medical care.
8. Perform medical manipulations.
9. Implement a system of anti-epidemic and preventive measures.
10. Plan measures to prevent the spread of tuberculosis. Carry out anti-epidemic measures in the tuberculosis center.
11. To determine the tactics of examination and prevention of healthy people and patients subject to dispensary supervision.
12. Keep medical records.

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- human anatomy - know the anatomy of the respiratory system;
- physiology - to know the physiology of the respiratory system;
- pathomorphology - to know pathomorphological changes of organs at tuberculosis;
- pathophysiology - to know the pathophysiology of the respiratory system;
- microbiology - to know the morphological structure, properties, pathogenicity and virulence of Mycobacterium tuberculosis, methods of their detection in sputum and other materials, to be able to collect material for bacteriological examination, to evaluate the results;
- pharmacology - to know antimycobacterial drugs, mechanisms of action, side effects, to be able to prescribe them to the patient;
- propaedeutics of internal medicine - to know the method of questioning and objective examination of the patient, to be able to collect medical history and examine the patient, evaluate the data obtained;
- propaedeutics of pediatrics - to know the method of questioning and objective examination of the child, to be able to collect anamnesis and examine the child;
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Detailing of competencies according to NQF descriptors in the form of "Competence Matrix".

Competence matrix

№	Competence	Knowledge	Skills	Communication	Autonomy and responsibility
General competencies					
1.	Ability to abstract thinking, analysis and synthesis, the ability to learn and master modern knowledge.	Know the methods of analysis and synthesis; current trends in the industry and analyze them.	Be able to analyze information, make informed decisions, be able to master modern knowledge.	Establish appropriate links to achieve goals.	Be responsible for the timely acquisition of modern knowledge.
2.	Ability to apply knowledge in practical situations	Know the methods of implementing knowledge in solving practical problems.	Be able to use professional knowledge to solve practical problems.	Establish links with the subjects of practical activities.	Be responsible for the validity of decisions.
3.	Knowledge and understanding of the subject area and understanding of professional activity	Have a deep knowledge of the structure of professional activity.	Be able to carry out professional activities that require updating and integration of knowledge.	Ability to effectively form a communication strategy in professional activities.	To be responsible for professional development, ability to further professional training with a high level of autonomy.
4.	Ability to adapt and action in a new situation.	Know the types and methods of adaptation, principles of action in a new situation.	To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity.	Establish appropriate connections to achieve results.	Be responsible for the quality of professional tasks in the new situation.
5.	Ability to make informed decisions, ability to work in a team.	Know the tactics and strategies of communication, laws and ways of communicative behavior.	Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork.	Use communication strategies and interpersonal skills.	Be responsible for choosing the method of communication.
6.	Interpersonal skills.	Know the laws and methods of interpersonal interaction.	Be able to choose ways and strategies of communication for interpersonal interaction	Use interpersonal skills.	Be responsible for choosing the method of communication.
7.	Ability to communicate in the state language as orally and in writing.	Have a perfect knowledge of the state language.	Be able to apply knowledge of the state language, both orally and in writing.	Use the state language in professional communication and record keeping. .	Be responsible for fluency in the state language.

8.	Ability to communicate in a foreign language.	Have a basic knowledge of a foreign language.	Be able to communicate in a foreign language.	Use a foreign language in professional activities.	Be responsible for the development of professional knowledge using a foreign language.
9.	Skills in the use of information and communication technologies.	Have in-depth knowledge in the field of information and communication technologies used in professional activities.	Be able to use information and communication technologies in the professional field.	Use information and communication technologies in professional activities.	Be responsible for the development of professional knowledge and skills.
10.	Definiteness and persistence to the tasks and responsibilities.	Know the responsibilities and ways to perform the tasks.	Be able to determine the purpose and objectives; be persistent and conscientious in the performance of duties.	Establish interpersonal relationships to effectively perform tasks and responsibilities.	Responsible for the quality of the tasks.
11.	The ability to act socially responsibly and consciously.	Know your social and civil rights and responsibilities.	To form one's civic consciousness, to be able to act in accordance with it.	Ability to convey one's public and social position.	Be responsible for your civic position and activities.
12.	Ability to act on ethical considerations	Know the basics of ethics and deontology.	Be able to apply ethical and deontological norms and principles in professional activities.	In professional activities to adhere to moral and ethical principles and professional subordination.	To bear personal responsibility for observance of ethical and deontological norms and principles in professional activity.
Special (professional, subject) competencies					
1.	Skills of interviewing and clinical examination of the patient.	Know the standard methods and schemes of interviewing, physical examination of the patient.	Be able to collect patient complaints, medical history and life, conduct a physical examination of the patient.	Effectively form a communication strategy when communicating with the patient and his relatives.	Carry responsibility for the quality collection of patient information based on survey, examination, palpation, percussion and auscultation.
2.	Ability to determine the required list of laboratory and instrumental studies and evaluate their results.	Know the necessary laboratory and instrumental tests for the diagnosis of tuberculosis.	Be able to schedule laboratory and instrumental examinations by applying standard methods and analyze the results of laboratory and instrumental studies.	Professionally inform the patient about the need for a list laboratory and instrumental research and the results of these examinations.	Be responsible for the correct appointment of laboratory and instrumental tests, timely and accurate evaluation of their results.
3.	Ability to establish a preliminary and clinical diagnosis	Know algorithms for the diagnosis of tuberculosis, the selection of leading symptoms or syndromes.	On the basis of the examination to be able to diagnose tuberculosis and formulate it according to the clinical classification.	On the basis of normative documents to keep medical documentation of the patient (card of the outpatient / inpatient patient).	Adhering to ethical and legal norms, be responsible for making informed decisions and actions regarding the correctness of the preliminary and clinical diagnosis.

4.	Ability to determine the required mode of work and rest in the treatment of diseases.	Know the algorithms and standard schemes for determining the mode of work and rest in tuberculosis.	Be able to determine the necessary mode of work and rest of patients with tuberculosis.	To form and inform the patient and / or his relatives about the necessary mode of work and rest.	Be responsible for the validity of the appointment of work and rest.
5.	Ability to determine the nature of nutrition in the treatment of diseases.	To know algorithms and standard schemes of selection of medical food at tuberculosis.	Be able to choose the right food for patients with tuberculosis.	Form and communicate to the patient and / or his relatives conclusions about proper nutrition in tuberculosis.	Be responsible for selecting the right diet for TB patients.
6.	Ability to determine the principles and nature of tuberculosis treatment.	Have specialized knowledge of algorithms and standard schemes of tuberculosis treatment.	Be able to prescribe treatment to a patient with tuberculosis.	Inform the patient about the need for mandatory treatment of tuberculosis and strict adherence to all doctor's recommendations.	Be responsible for the timely appointment of adequate treatment of a patient with tuberculosis.
7.	Ability to diagnose emergencies.	Know the clinical signs and methods of diagnosing emergencies in tuberculosis (pulmonary hemorrhage, spontaneous pneumothorax).	Be able to timely identify and adequately assess the urgent condition of the patient.	It is reasonable to inform the patient and / or relatives about the presence of an emergency and the need for emergency medical care.	Be responsible for the timeliness and accuracy of determining the emergency condition and its severity.
8.	Ability to determine the tactics of emergency medical care.	Know the algorithms for providing emergency medical care in emergencies in tuberculosis.	Be able to apply tactics of emergency medical care.	It is reasonable to inform the patient or relatives about the need for emergency care and obtain consent for medical intervention.	Be responsible for the correctness of determining the tactics of emergency medical care.
9.	Emergency care skills.	Know the algorithms for providing emergency medical care in emergencies.	Be able to provide emergency medical care in case of emergency.	Explain to the patient and / or relatives the need and procedure for emergency medical care.	Be responsible for the timeliness and quality of emergency medical care.
10.	Skills to perform medical manipulations.	Have specialized knowledge of algorithms for performing medical manipulations.	Be able to perform medical manipulations.	It is reasonable to form and convey to the patient and / or his relatives conclusions about the need for medical manipulations.	Be responsible for the quality of medical manipulations.
11.	Ability to carry out sanitary and hygienic and preventive measures.	Know the types of tuberculosis prevention (vaccination, BCG revaccination; chemoprophylaxis; sanitary prevention).	Be able to carry out sanitary and hygienic and preventive measures aimed at preventing infection and tuberculosis of the population.	Inform the population about the need for tuberculosis prevention.	To be responsible for timely and high-quality tuberculosis prevention.

12.	Ability to plan and carry out preventive and anti-epidemic measures against infectious diseases.	To know the system of anti-epidemic measures of infectious control of tuberculosis.	Be able to carry out anti-epidemic measures in the center of tuberculosis infection.	Inform the population and medical staff about the need for anti-epidemic measures in the center of tuberculosis infection and strict compliance with the requirements of infection control in medical institutions.	To be responsible for the timeliness of anti-epidemic measures in the center of tuberculosis infection and strict compliance with the requirements of infection control in medical institutions.
13.	Ability to determine the tactics of management of persons subject to dispensary supervision.	Know the categories and groups of dispensary observation of patients with tuberculosis, the tactics of their examination and the principles of prevention.	Be able to select persons who are subject to dispensary supervision.	Organize dispensary supervision of sick and healthy people who are subject to medical examination.	To be responsible for the quality of the organization of dispensary supervision of certain contingents of persons
14.	Ability to keep medical records.	Know the system of official document management in the work of a doctor, the basic rules of medical records.	Be able to fill out medical documents, in particular using modern computer information technology.	Apply interpersonal skills for quality medical records.	Carry responsibility for the quality and completeness of medical records.

Learning outcomes:

Integrative final program learning outcomes, the formation of which is facilitated by the discipline "Tuberculosis":

- to carry out professional activity in social interaction, which is based on humanistic and ethical principles;
- apply knowledge of general and professional disciplines in professional activities;
- comply with the norms of sanitary and hygienic regime and safety requirements during professional activities;
- use the results of independent search, analysis and synthesis of information from various sources to solve typical problems of professional activity;
- argue information for decision-making, be responsible for them in standard and non-standard professional situations;
- adhere to the principles of deontology and ethics in professional activities;
- to carry out professional communication in the Ukrainian literary language, to use skills of oral communication in foreign languages, analyzing texts of a professional direction and to translate foreign language information sources;
- adhere to the norms of communication in professional interaction with colleagues, management, work effectively in a team;
- analyze the information obtained as a result of scientific research, summarize, systematize and use it in professional activities.

Semantic module 1. General issues of phthisiology

Specific goals:

• Determine the risk factors for TB.
• To describe the features of the pathogens of tuberculosis.
• To treat the peculiarities of ways of infection with mycobacterium tuberculosis.
• Analyze the main sections of the clinical classification of tuberculosis and formulate the clinical diagnosis according to the classification.

Theme 1. Definition of tuberculosis as a scientific and practical problem.
History of phthisiology. Epidemiology of tuberculosis. Etiology, pathogenesis, tuberculosis. Immunity in tuberculosis. Clinical classification of tuberculosis.

Tuberculosis as a social, medical and scientific problem.
The main stages of the development of the doctrine of tuberculosis. The significance of the works of Hippocrates, Avicenna, R.Laneenk, R.Koha, I.Pulya, K.Rentgen. The role of scientists MI Pirogov, A.Kalmetta and Guerin, S.P.Botkin, F.G.Yanovsky, O.A.Kiselya, Z.Vaksman, M.P.Pilipchuk, O.S.Mamolat, K. Stilbo
The spread of tuberculosis in countries with different levels of economic development. The main epidemiological parameters (infection, morbidity, morbidity, mortality) and their dynamics over the last 10-15 years.
Risk Factors for TB. Tuberculosis pathomorphosis.
Tobacco pathogen, morphological structure, properties. Mandlivity of MBT (L-forms, filtering forms, persistence, reversal). Chemically resistant MBT (multidrug resistance-expanded resistance) and their clinical significance. Atypical mycobacteria. The stability of the Office in the environment.
Infection with tuberculosis, ways of penetration and spread of MBT in the human body. Local and general body reactions to tuberculosis infection. Natural resistance to tuberculosis and anti-tuberculosis immunity. Humoral and cellular immunity, their mechanisms.
Clinical classification of tuberculosis. Principles of construction of classification of tuberculosis. The classification sections reflecting the type of tuberculosis process, the main clinical forms, the characteristics of the tuberculous process and its complications, the clinical and dispensary categories of patient records, the effectiveness of treatment for patients with tuberculosis, the effects of tuberculosis. Formulation of the diagnosis of tuberculosis according to the classification.

Theme 2. Organization of detection and diagnosis of tuberculosis. Special methods of detection and diagnosis of tuberculosis (microbiological diagnostics, X-ray diagnostics, tuberculin diagnostics).

The method of examination of a patient with tuberculosis.

Specific goals:

• Determine the categories of people at high risk of TB.
• Identify clinical signs of tuberculosis.
• Determine the role of bacterioscopy and bacteriological methods of sputum research.
• Determine the type of stability of the Office according to the data of bacteriological research.

• Treat major X-ray syndromes in a TB clinic.
• To determine the tactics of physicians of the institutions of the general medical network for patients according to their X-ray and bacterioscopy sputum research.
• Analyze the results of the Mantoux test with 2 TPD-L tests.
• Explain the concept of "turning" a tuberculin test and its importance for early diagnosis of tuberculosis.
• Analyze the basic indicators of the function of external breathing.

Ways and methods for detecting tuberculosis. Categories of people at high risk for TB. Early, timely, late and late detection of tuberculosis. Participation of healthcare workers in the detection of tuberculosis.
Features of clinical examination of a patient with tuberculosis: complaints, anamnesis of disease and life; physical examination methods (palpation, percussion, auscultation); diagnostic value of changes in the hemogram.
Microbiological diagnostics: methods of bacterioscopic, bacteriological and biological detection of MBT, the significance of their results for the diagnosis of tuberculosis. Determination of the sensitivity of MBT to anti-TB drugs.
Methods of X-ray examination of patients with tuberculosis of the respiratory organs. X-ray, tomo- and fluorography, X-ray, computer tomography. Radiological syndromes: lung root damage, dissemination, infiltration, spherical shadow, cavity, pulmonary changes (fibrosis). Clinical forms of pulmonary tuberculosis in the X-ray image. X-ray, tomo- and fluorogram analysis.
Population groups subject to mandatory annual fluorographic survey.
The purpose of tuberculin diagnostics. The notion of tuberculin. Mantoux test with 2 TP PP-L: displays, techniques, evaluation of results. The concept of a "turn" of a tuberculin test. Differential diagnostics of postvaccinal and infectious immunity.

Content module 2. Treatment and prevention of tuberculosis.
Specific goals:
• To treat the basic principles of treating patients with tuberculosis.
• Formulate standard regimens of antimycobacterial therapy depending on the category of treatment.
• Diagnose side-effects of anti-TB drugs and identify methods for preventing them.
• Determine the criteria for the treatment of patients with tuberculosis.
• Determine indications and contraindications for BCG vaccination and revaccination.
• Diagnose the complications of BCG vaccination (revaccination).
• Determine the symptoms before chemo prophylaxis.
• Determine the epidemiological risk of tuberculosis infections.
• To apply a set of preventive measures in the centers of tuberculosis infection.

Theme 3. General principles of treatment for patients with tuberculosis. Antimycobacterial drugs. Standard treatment regimens patients with tuberculosis
General principles of antimycobacterial therapy: complexity, combination, controllability, two-phase treatment, duration and continuity, individual approach, stage sequence, free of charge. Anti-TB drugs: classification, dosages, methods and

multiplicity of administration in the patient's body. Adverse reactions to antimycobacterial drugs, their prevention and methods of elimination. Criteria for the treatment of patients with tuberculosis. Treatment regimens for DOTS, DOTS plus programs. Observation of the state of patients with tuberculosis in the process of treatment.

Theme 4. Nonspecific therapy for patients with tuberculosis (hygiene and dietary regime, pathogenetic, symptomatic treatment). Surgical treatment. Sanatorium and spa treatment. Cure for patients.

Hygiene and diet regime in the clinic of tuberculosis. Pathogenetic treatment in the intensive phase (anti-inflammatory, detoxification therapy, elimination of side effects of antimycobacterial drugs) and in the supporting phase (general strengthening therapy). Immunocorrection therapy. Symptomatic treatment, physiotherapy.
Basic surgical methods of treatment for tuberculosis of the respiratory organs (operations on the lungs, operations on the pleura). Impressions, contraindications.
Sanatorium and resort treatment for patients with tuberculosis.
Expertise of working capacity.

Theme 5. Tuberculosis prevention.

Social prevention.
Sanitary prophylaxis, its task. Concept about the center of tuberculous infection. Categories of cells according to the degree of epidemiological danger. Work in the cell of tuberculosis infection in the prevention of tuberculosis. Sanitary and educational work.
BCG and BCG-M vaccination, BCG vaccination. BCG and BCG-M vaccine. The technique of vaccination and revaccination. Impressions and contraindications for vaccination and revaccination. Complications of TB vaccinations.
Chemoprophylaxis of tuberculosis, displays, methods of conducting.
Infectious control, components of infection control.

Content module 3 Primary forms of tuberculosis.
Complications forms. Secondary forms of tuberculosis. Complications of secondary forms. Tuberculosis of the lungs in combination with other diseases.

Specific goals:
• Describe the main X-ray syndromes in primary forms of tuberculosis.
• Diagnose primary forms of tuberculosis based on anamnestic, clinical-radiological, and laboratory data.
• Formulate a clinical diagnosis of primary forms according to the classification.
• Assign comprehensive therapy in various forms of primary tuberculosis.
• Diagnose the complications of primary forms of tuberculosis
• Describe the main X-ray syndromes in secondary forms of tuberculosis.
• Diagnose secondary forms of tuberculosis based on anamnestic, clinical-radiological, and laboratory data.

• Formulate a clinical diagnosis of secondary forms according to the classification.
• Appoint a comprehensive therapy for various forms of secondary tuberculosis.
• Diagnose the complications of secondary forms of tuberculosis.
• Provide emergency care for emergency conditions in patients with tuberculosis.
• Analyze the peculiarities of the course and treatment of pulmonary tuberculosis, combined with other diseases.

Theme 6. Tuberculosis of unidentified localization. Tuberculosis of intracranial lymph nodes. Primary tuberculosis complex. Pathogenesis, pathomorphology, clinic, diagnostics, differential diagnosis, treatment, consequences. Complications of primary forms of tuberculosis.

Morphological basis of tuberculosis of unidentified localization. Clinical manifestations, course. Differential diagnosis of tuberculosis of unidentified localization with helminthis, rheumatism, chronic tonsillitis. Treatment.
Classification of intracranial lymph nodes. Clinical and X-ray forms of tuberculous bronchoenadenitis: infiltrative, tumorous, "small". Pathogenesis, pathomorphology, clinic, course. Differential diagnostics with non-specific adenopathies, lymphogranulomatosis, sarcoidosis. Lying Consequences.
Pathogenesis and pathomorphology of the primary tuberculosis complex. Clinical manifestations, course, diagnostics. Differential diagnostics with nonspecific pneumonia, eosinophilic infiltrate. Treatment. Consequences. Residual changes of the primary tuberculous complex and their significance for the emergence of secondary forms of tuberculosis.
The complication of tuberculosis of intra-chest lymph nodes and the primary tuberculous complex (atelectasis, specific lesion of the bronchi, hematogenous or lymphoematogenic dissemination, pleurisy, formation of the primary cavity), diagnostics, treatment.
Features of the course of primary forms of tuberculosis in children and adolescents.

Theme7. Disseminated pulmonary tuberculosis. Military tuberculosis. Tuberculosis of the nervous system and the membranes. Pathogenesis, pathomorphology, clinic, diagnostics, differential diagnosis, treatment, consequences. Cure for patients.

Pathogenesis and pathomorphology of disseminated pulmonary tuberculosis. Clinical variants of the course (acute, subacute, chronic) and their radiological signs. Clinic, diagnostics. Differential diagnostics with nonspecific pneumonia, pneumoconiosis, carcinomatosis. Treatment. Consequences. Complications of disseminated tuberculosis (pleurisy, lesion of bronchi, larynx and other organs).
Pathogenesis and pathomorphology of miliary tuberculosis. Clinical options. Diagnosis. Differential diagnosis with miliary kanciramatosis, sepsis. Treatment. Consequences.
Pathogenesis and pathomorphology of tuberculous meningitis. Clinic, features of diagnosis and flow. Method of examination of a patient with tuberculous meningitis. Spinal cord puncture and interpretation of the results of the study of cerebrospinal fluid. Differential diagnostics. Treatment. Consequences. Forecast.

Theme 8. Focal and infiltrative pulmonary tuberculosis. Caseous pneumonia. Tuberculoma of the lungs. Fibroscopic cavernosum and cirrhotic pulmonary tuberculosis. Pathogenesis, pathomorphology, diagnostics, differential diagnosis, treatment, consequences. Cure for patients.

Pathogenesis and pathomorphology. Methods of detection, clinic and the course of focal and infiltrative forms of tuberculosis. Methods of determining the activity of tuberculosis centers. Causes of the progression of focal tuberculosis and the formation of common processes. Clinical and X-ray variants of infiltrates. Differential diagnostics of focal tuberculosis with nonspecific pneumonia; infiltrative tuberculosis - with pleuropneumonia, lung cancer, eosinophilic infiltrate.

Features of the course of caseous pneumonia. Differential diagnosis of caseous pneumonia with nonspecific pneumonia. Treatment. Consequences.

Classification of pulmonary tuberculosis. Features of the course of pulmonary tuberculosis. Differential diagnostics of pulmonary tuberculosis with peripheral cancer, echinococcal cyst. Treatment. Consequences.

Causes of fibrous-cavernous tuberculosis of the lungs. Pathogenesis, pathomorphology, major clinical syndromes, X-ray signs of fibro-cavernous and cirrhotic pulmonary tuberculosis. Options for the clinical course. Differential diagnostics of fibrous-cavernous tuberculosis of lungs with chronic abscess, cancer; cirrhotic tuberculosis of the lungs - with post-tuberculous cirrhosis. Treatment. Consequences.

Theme 9. Tuberculous pleurisy (including empyema). Pathogenesis, pathomophology, clinic, diagnostics, differential diagnosis, treatment, consequences. Complications of secondary forms of tuberculosis:

hemoptysis, pulmonary haemorrhage, spontaneous pneumothorax,
chronic pulmonary heart, amyloidosis of the internal organs.
Cure for patients. Protecting the history of the disease.

Pathogenesis, pathomorphology and classification of tuberculous pleurisies. The main clinical syndromes of pleurisy. Modern diagnostic methods. Impressions before conduction of a pleural puncture, a technique of its conduction. Differential diagnosis of tuberculous pleurisy with pleurisy with pneumonia. Treatment. Consequences.

Pathogenesis, clinic, diagnostics and principles of treatment of hemoptysis, pulmonary haemorrhage, spontaneous pneumothorax, chronic pulmonary heart and amyloidosis. Emergency delivery for pulmonary haemorrhage, spontaneous pneumothorax. Protecting the history of the disease.

Theme 10. Tuberculosis of peripheral lymph nodes. Tuberculosis bones and joints. Clinic, diagnostics, treatment.

Pathogenesis and pathomorphology. Urban and general manifestations. Clinical forms of tuberculosis of peripheral lymph nodes. Diagnosis. Treatment.

Clinic for tuberculosis of bones and joints. Diagnosis. Treatment.

Theme 11. Tuberculosis of the lungs, combined with professional dust diseases.

Pneumoconiosis. Classification, pathomorphology, form, flow. X-ray characteristics of the stages of pneumoconiosis. Silicosis. Differential diagnostics with pulmonary tuberculosis. Silicotuberculosis Clinic, treatment.
Tuberculosis in conjunction with pregnancy. Tuberculosis in patients with diabetes mellitus, ulcers in the stomach.

Theme 12. Tuberculosis in patients with pregnancy. Clinic, diagnostics. Features of the course and treatment. Tuberculosis in patients with diabetes mellitus, . Features of the course and treatment

Tuberculosis in conjunction with pregnancy. Tuberculosis in patients with diabetes mellitus, ulcers in the stomach. . Features of the course and treatment

Theme 13. Tuberculosis in patients with HIV / AIDS. Clinic, diagnostics. Features of the course and treatment.

Causes of tuberculosis development in AIDS patients. The most common forms, course, treatment.

Topics	Lectures	Practical Lessons	**CPC**
Content module *1.* General issues of phthisiology The method of examination of a patient with tuberculosis.			
Theme 1. Definition of tuberculosis as a scientific and practical problem.History of phthisiology. Epidemiology of tuberculosis. Etiology, pathogenesis, tuberculosis. Immunity in tuberculosis. Clinical classification of tuberculosis.	2	4	
Theme 2. Organization of revealing and diagnosis of tuberculosis. Special methods of revealing and diagnosis of tuberculosis (bacteriologic examination, chest radiography, tuberculin skin test).	2	4	
Together with content module			
Together with content module 2	4	8	
Content module *2.* Treatment and prevention of tuberculosis.			
Theme 3. Treatment of tuberculosis: basic principles and methods. Standart chemotherapy regimens. Drugs for treatment of tuberculosis	2	4	
Theme 4. Nonspecific treatment of pulmonary tuberculosis. *(hygiene and*	-	-	4

dietary regime, pathogenetic, symptomatic treatment) Methods of surgical treatment of pulmonary tuberculosis *Sanatorium and spa treatment*			
Theme 5.. Prophylaxis of tuberculosis Social prevention. Sanitary prophylaxis, BCG and BCG-M vaccination Complications of TB vaccinations.Chemoprophylaxis of tuberculosis	2	4	-
Together with content module 3	4	8	4
Content module *3.* . Primary forms of tuberculosis. . Secondary forms of tuberculosis. Complications of primary forms.			
Theme 6. Primary tuberculosis. Tuberculosis of unknown location. Tuberculosis of the intrathoracic lymphatic nodes. Primary complex. Pathogenesis. Symptoms and sings. Diagnosis. Differential diagnosis. Complications of primary tuberculosis. Prognosis. Treatment	0,5	4	-
Theme 7.. Disseminated tuberculosis. Miliary tuberculosis. Tuberculosis of nervous system. Tuberculous meningitis. Pathogenesis. Symptoms and sings. Diagnosis. Differential diagnosis. Complications. Prognosis. Treatment.	0,5	4	
Theme 8. Focal and infiltrative tuberculosis. Caseous pneumonia. Tuberculoma. Fibro-cavernous tuberculosis. Cirrhotic tuberculosis. Pathogenesis. Pathomorphology. Symptoms and sings. Diagnosis. Differential diagnosis. Complications. Prognosis. Treatment.	0,5	4	
Theme 9. Pleural tuberculosis. TB pleuratis and empyema. Pathogenesis. Symptoms and sings. Diagnosis. Differential diagnosis. Complications. Prognosis. Treatment. Examination of the patients. Complications of secondary tuberculosis: hemoptysis, hemorrhage, spontaneous pneumothorax, chronic cor pulmonare, amyloidosis of internal organs. Pathogenesis. Symptoms and sings. Diagnosis. Treatment. Case report defence.	0,5	4	-
Theme 10. *Tuberculosis of peripheral lymph nodes. Tuberculosis bones and joints. Clinic, diagnostics, treatment.*	-	-	4
Theme 11. *Tuberculosis of the lungs, combined with professional dust diseases..*	-	-	4
Theme 12. Tuberculosis in patients with pregnancyand diabetes mellitus Clinic, diagnostics. Features of the course and treatment.			4
Theme 13. Tuberculosis in patients with HIV / AIDS. Clinic, diagnostics. Features of the course and treatment.			
Total-60/2 ,loans ECTS	10	30	20

CURRICULUM
of the Lectures in Phthisiology

№	Topics	Date Hours
1.	Tuberculosis as scientific and practical problem. The history of tuberculosis. Epidemiology of tuberculosis. Etiology and pathogenesis of tuberculosis. Tuberculosis immunity.	02.09. (2 hours)
2.	Organization of revealing and diagnosis of tuberculosis.	16.09. (2 hours)
3.	Treatment of tuberculosis: basic principles and methods. Prophylaxis of tuberculosis.	30.09. (2 hours)
4.	Prophylaxis of tuberculosis.	14.10. (2 hours)
5.	Primary and secondary tuberculosis.	28.10. (2 hours)
	Total	10 hours

CURRICULUM
of the Practical Lessons in Phthisiology

№	**Topics**	**Hours**
1	**2**	**3**
1.	Epidemiology of tuberculosis. Etiology and pathogenesis of tuberculosis. Clinical classification of tuberculosis.	4 hours
2.	Organization of revealing and diagnosis of tuberculosis. Special methods of revealing and diagnosis of tuberculosis (bacteriologic examination, chest radiography, tuberculin skin test).	4 hours
3.	Treatment of tuberculosis: basic principles. Anti-TB drugs. Standart drug regimens.	4 hours
4.	Prophylaxis of tuberculosis.	4 hours
5.	Primary tuberculosis. Tuberculosis of unknown location. Tuberculosis of the intrathoracic lymphatic nodes. Primary complex. Pathogenesis. Symptoms and sings. Diagnosis. Differential diagnosis. Complications of primary tuberculosis. Prognosis. Treatment.	4 hours
6.	Disseminated tuberculosis. Miliary tuberculosis. Tuberculosis of nervous system. Tuberculous meningitis. Pathogenesis. Symptoms and sings. Diagnosis. Differential diagnosis. Complications. Prognosis. Treatment.	4 hours
7.	Focal and infiltrative tuberculosis. Caseous pneumonia. Tuberculoma. Fibro-cavernous tuberculosis. Cirrhotic tuberculosis. Pathogenesis. Pathomorphology. Symptoms and sings. Diagnosis. Differential diagnosis. Complications. Prognosis. Treatment.	4 hours
8.	Pleural tuberculosis. TB pleuratis and empyema. Pathogenesis.	2 hours

	Symptoms and sings. Diagnosis. Differential diagnosis. Complications. Prognosis. Treatment. Examination of the patients. Complications of secondary tuberculosis: hemoptysis, hemorrhage, spontaneous pneumothorax, chronic cor pulmonare, amyloidosis of internal organs. Pathogenesis. Symptoms and sings. Diagnosis. Treatment. Case report defence.	
	Total:	30 hours

Group	**Date**							
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
2	06.09	20.09	04.10	18.10	01.11	15.11	29.11	13.12
3	14.09	28.09	12.10	26.10	09.11	23.11	07.12	21.12
4	03.09	17.09	01.10	15.10	29.10	19.11	03.12	17.12
5	08.09	22.09	06.10	20.10	03.11	17.11	01.12	15.12
6	13.09	27.09	11.10	25.10	08.11	22.11	06.12	20.12
7	01.09	15.09	29.09	18.10	27.10	10.11	24.11	08.12
8	07.09	21.09	05.10	19.10	02.11	16.11	30.11	14.12
9	02.09	16.09	30.09	28.10	11.11	25.11	09.12	23.12
10	14.09	28.09	12.10	26.10	09.11	23.11	07.12	21.12
11	07.09	21.09	05.10	19.10	02.11	16.11	30.11	14.12
12	09.09	23.09	07.10	21.10	04.11	18.11	02.12	16.12

CURRICULUM
of the Out of Class Working

№	Topics	Hours
1.	Nonspecific therapy of tuberculosis (hygiene-dietary regimen, pathogenetic and symptomatic treatment). Surgical treatment. Facilities in sanatoria and health resorts	4 hours
2.	Tuberculosis of the peripheral lymphatic nodes. Bone and joints tuberculosis. Symptoms and sings. Diagnosis. Treatment.	4 hours
3.	Pulmonary tuberculosis combined with professional pulmonary disease.	4 hours
4.	Tuberculosis and pregnancy. Tuberculosis in patients with diabetes mellitus, gastric and duodenal ulcer	4 hours
5.	Tuberculosis in HIV/AIDS patients . Diagnosis. Differential diagnosis. Complications. Prognosis. Treatment.	4 hours
	Total:	20 hours

Methods of training

Verbal - explanation, briefing, educational discussion.

Visual - Illustration (tables, X-rays, results of analyzes and other survey methods);
- Demonstration (diagnostic and therapeutic manipulations).
Practical - the formation of skills and abilities of clinical examination of patients, the implementation of the prescribed medical manipulation program, emergency assistance.
Interactive - which involves working in small groups to perform a specific set of tasks; simulation of clinical situations.

Methods of control

The control is carried out by a comprehensive assessment of the theoretical and practical training of the student on the basis of oral questioning, test control, the solution of clinical situational tasks, demonstration of practical skills and abilities.

Criteria for evaluation

Assessment of the student's oral response			
«Perfect»	«Good»	«Satisfactorily»	«Unsatisfactorily»
The student profoundly and firmly mastered the material; consistently, competently and logically teaches him, closely relates theory with practice, freely copes with issues.	A student knows the material competently and substantially compliant and does not allow material mistakes in answering questions.	The student has knowledge of the main material, but did not learn its details, makes mistakes, violates the sequence in the presentation of the material.	The student does not know part of the software, allows for significant errors, is not sure of the answer.
Assessment of the solution of test tasks			
«Perfect»	«Good»	«Satisfactorily»	«Unsatisfactorily»
100-91%	90-76%	75-51%	50 і менше%
Assessment of the solution of a clinical situational problem			
«Perfect»	«Good»	«Satisfactorily»	«Unsatisfactorily»
Precisely formulated and fully substantiated clinical diagnosis in the patient and put on a treatment plan.	A precisely formulated and partly substantiated clinical diagnosis of the patient, inaccuracies in the preparation of the treatment plan have been made.	There were difficulties in substantiating the clinical diagnosis, drawing up a patient's treatment plan.	No answer to the task is given.

Assessment of the demonstration of practical skills			
«Perfect»	«Good»	«Satisfactorily»	«Unsatisfactorily»
The student has mastered the practical skills provided by the program.	The student performs practical skills, but does not assume fundamental errors.	The student made serious mistakes in the implementation of practical skills.	The student did not develop practical skills; did not develop the skills provided by the program.

Distribution of points received by students
Types of control - current and final.

The form of final control in accordance with the curriculum is an exam
Current control is carried out during the training sessions and is aimed at verifying students' learning of the material.
Estimation of the current educational activity When assessing the mastering of each topic in the course of the current educational activity, the student is assessed on a 4-point (traditional) scale, taking into account the criteria for assessing the discipline. It takes into account all types of works provided for by the curriculum. A student receives an assessment from each topic. Forms of assessment of the current academic activity are standardized and include the control of theoretical and practical training. Shown on a traditional scale of evaluation are converted to points.
The maximum number of points a student can score for the current semester entrance exam for the entrance exam is 120 points. The minimum number of points that a student must score for the current study activity per semester for admission to the exam is 72 points.
The calculation of the number of points is based on the student's assessment of the traditional scale during the study of discipline, by calculating the average arithmetic (CA), rounded to two decimal places. The resulting value is converted to a score on a multi-scale scale in the following way:
Recalculation of the average for the current activity in the multi-point scale for the disciplines ending with the exam.

4- ball scale	200- ball scale
5	120
4.95	119
4.91	118
4.87	117
4.83	116
4.79	115
4.75	114
4.7	113
4.66	112
4.62	111
4.58	110
4.54	109
4.5	108

4- ball scale	200- ball scale
4.45	107
4.41	106
4.37	105
4.33	104
4.29	103
4.25	102
4.2	101
4.16	100
4.12	99
4.08	98
4.04	97
3.99	96
3.95	95

4- ball scale	200- ball scale
3.91	94
3.87	93
3.83	92
3.79	91
3.74	90
3.7	89
3.66	88
3.62	87
3.58	86
3.54	85
3.49	84
3.45	83
3.41	82

4- ball scale	200- ball scale
3.37	81
3.33	80
3.29	79
3.25	78
3.2	77
3.16	76
3.12	75
3.08	74
3.04	73
3	72
Less 3	It's a bad thing

Independent work of students is assessed during the current control of the topic in the relevant class. Assimilation of those that are imposed only on independent work is controlled by the final control.
The final control is conducted to evaluate the results of the training at a certain educational-qualifying level and at individual completed stages according to the national scale and the ECTS scale.

Semester control is carried out in the form of a semester exam on the discipline of Phthisiology in the amount of study material determined by the work program of academic discipline and in terms set by the work curriculum, individual curriculum of the student.
The semester exam is a form of final control of the student's acquisition of theoretical and practical material from a separate discipline for a semester, which is conducted as a control measure. A student is admitted to the semester examination on discipline, if he has attended all classroom training sessions provided by the curriculum, fulfilled all types of work envisaged by the work program of this discipline and during his study during the semester he scored the number of points not less than the minimum (72 points)
The semester exam is conducted in writing during the exam session, according to the schedule. The form of the exam is standardized and includes the control of theoretical and practical training.
The maximum number of points a student can score for an exam is 80.
The minimum number of points during the examination - not less than 50.
Пакет завдань семестрового екзамену містить 25 тестових завдань, 2 теоретичні питання, 2 клінічні ситуаційні задачі, опис та інтерпретацію рентгенограми.
Table of assessment of Differentiated credit

Test control	**Theoretical issues**	**Clinical situational tasks**	**Description and interpretation of X-rays**
The correct solution to the test task is 1 point (maximum score is 25)	«perfect» 10 points	«perfect» 10 points	«perfect» 15 points
	«good» 8 points	«good» 8 points	«good» 12 points
	«satisfactorily» 7 points	«satisfactorily» 7 points	«satisfactorily» 9 points
	«unsatisfactorily» 0 points	«unsatisfactorily» 0 points	«unsatisfactorily» 0 points

Determination of the number of points the student got from the discipline
An assessment from the discipline that completes the exam is defined as the sum of points for the current educational activity (not less than 72) and the marks for the exam (not less than 50).
Disciplines are independently converted into both the ECTS and 4-point scale. The ECTS scores on the 4-point scale are not converted and vice versa.
Points of students studying in one specialty, taking into account the number of points scored from the discipline, are ranked on the ECTS scale as follows:

Assessment of ECTS	**The statistical indicator**
A	**The best 10% of students**

B	**The next 25% of students**
C	**The next 30% of students**
D	**The next 25% of students**
E	**The last 10% of students**

Score points for students who have successfully completed the program are converted to the traditional 4-point scale by the absolute criteria listed in the table below:

Score points	**Score on the 4- score scale**
From 170 to 200 points	5
From 140 to 169 points	4
From 139 points to the minimum number of points a student should get	3
Below is the minimum number of points that the student should collect	2

The ECTS mark on a traditional scale is not converted because the ECTS scale and the four-point scale are independent.
Objectivity of assessment of students' educational activity is checked by statistical methods (correlation coefficient between ECTS assessment and national scale assessment).
Methodical support

Methodical developments of practical classes, test tasks, clinical situational tasks, orientational maps for the organization of independent work of students.

List of questions to be put on the final control

Semantic module 1. General issues of phthisiology . Methods of medical evaluation of the patients with tuberculosis
1. The value of the works of Hippocrates, Avicenna, R. Laenneka, R. Koch in the study of tuberculosis.
2. The role of MI Pirogov, Kalmetta and Guerin, SP Botkin, FG Yanovsky, Z. Waxman in the development of the doctrine of tuberculosis.
3. The pathogens of tuberculosis, its types and forms of existence (L-forms), properties. The concept of persistence and reversion of mycobacterium tuberculosis.
4. Atypical Mycobacterium. Classification. Mycobacteriosis

5. The main epidemiological indicators of the prevalence of tuberculosis and their assessment.
6. Sources of tuberculosis infection. Allocation of mycobacteria into the environment.
7. Tuberculosis pathogenesis. Ways of infection and distribution of mycobacterium in the human body.
8. Immunity in tuberculosis.
9. Tuberculosis pathomorphosis.
10. Clinical classification of tuberculosis.
11.Persons (groups) at high risk for development TB disease.
12.The main complaints in the patients with tuberculosis.
13.Laboratory studies in detection of mycobacteria tuberculosis. Drug susceptibility testing, its clinical significance.
14. Methods of radiographic examination of the patients with pulmonary tuberculosis
15. "Compulsory" groups of population for prophylactic medical evaluation.
16.Tuberculin skin testing. The role of tuberculin tests in diagnosis of latent TB infection and TB disease. Mantoux test with 2 TU of PPD-L, evaluation of its results. Skin test conversion.
17.Differential diagnosis of postinfectious (BCG) and postvaccinal allergy in children and adolescents.
18.Examination of the function of external respiration/ The main indices of pulmonary function changes (spirography)

Content Module 2.Treatment and prophylaxis of tuberculosis

19.Treatment of tuberculosis: basic principles and methods.
20.Standart chemotherapy regimens
21.Treatment for different categories of pulmonary tuberculosis
22.Pathogenetic and nonspecific treatment of pulmonary tuberculosis.
23. Modern methods of surgical treatment of pulmonary tuberculosis
24. Criteria of clinical recovery TB
25.Recovery from tuberculosis. Residuals and their role in relapse of tuberculosis
26.Social prophylaxis of tuberculosis
27.Sanitary prophylaxis of tuberculosis
28.Nidi of tuberculous infection, classification. Disinfection current and conclusive.
29.Prophylaxis and early diagnosis of tuberculosis in person exposed to TB infection.
30.BCG and BCG-M vaccination and revaccination. Methods and technics. Evaluation of results
31.Complications of BCG vaccination and revaccination.
32. Chemoprophylaxis of tuberculosis.

Content Module 3. Primary tuberculosis. Complications of primary tuberculosis. Secondary tuberculosis (pulmonary and extrapulmonary).
Complications of secondary tuberculosis.

33.Early period of primary tubercular infection Primary tuberculosis. Tuberculosis of indeterminate location. Pathogenesis. Epidemiology. Pathogenesis. Symptoms and sings. Diagnosis. Differential diagnosis.. Treatment.
34.Primary complex. Pathogenesis. Symptoms and sings. Diagnosis. Treatment. Prognosis..
35.Tuberculosis of the intrathoracic lymph nodes. Pathogenesis. Symptoms and sings. Diagnosis. Treatment. Prognosis
36.Complications of primary tuberculosis forms.
37. Disseminated tuberculosis of lungs. Pathogenesis. Symptoms and sings. Diagnosis. Treatment. Prognosis.
38. Focal tuberculosis of lungs. Pathogenesis. Symptoms and sings . Diagnosis. Treatment. Prognosis.
39, Infiltrative tuberculosis of lungs. X-ray forms of infiltrates, Pathogenesis. Symptoms and sings . Diagnosis. Differential diagnosis.. Treatment. Prognosis.
40 Caseous pneumonia . Pathogenesis. Symptoms and sings . Diagnosis. Treatment. Prognosis.
41 Tuberculoma of lungs, Pathogenesis. Symptoms and sings. Diagnosis. Treatment. Prognosis.
42, Fibrocavernous tuberculosis. of lungs. Ethiology, Pathogenesis. Symptoms and sings. Diagnosis. Treatment. Prognosis.
43. Cirrhotic tuberculosis of lungs. Pathogenesis. Symptoms and sings. Diagnosis. Treatment. Prognosis.
44.Complications of lungs tuberculosis: hemoptysis, hemorrhage Pathogenesis. Symptoms and sings. Diagnosis. Treatment. Prognosis. First aid.
45.Complications of lungs tuberculosis. Spontaneous pneumothorax, Pathogenesis. Symptoms and sings. Diagnosis. Treatment. Prognosis. First aid.
46.Complications of lungs tuberculosis. Chronic cor pulmonare, Pathogenesis. Symptoms and sings. Diagnosis. Treatment. Prognosis.
47.Complications of lungs tuberculosis. Amyloidosis of internal organs. ,Ethiology Pathogenesis. Symptoms and sings. Diagnosis. Treatment. Prognosis
48. Pleural tuberculosis. TB pleuratis and empyema. Pathogenesis. Pathomorphology. Symptoms and sings. Diagnosis. Differential diagnosis. Complications. Prognosis. Treatment.
49.Miliary tuberculosis. . Pathogenesis. Clinical forms. Symptoms and sings. Diagnosis. Treatment. Prognosis.
50.Tuberculosis of nervous system. Tuberculous meningitis. Pathogenesis. Pathomorphology. Symptoms and sings. Diagnosis. Differential diagnosis. Complications. . Treatment. Prognosis
51.Tuberculosis of peripheral lymphatic nodes Pathogenesis. Symptoms and sings. Diagnosis. Treatment. Prognosis
52.Bone and jont tuberculosis. Symptoms and sings. Diagnosis. Treatment
53.Silicotuberculosis. Pathogenesis. Symptoms and sings. Diagnosis. Treatment. Prognosis
54 Tuberculosis in HIV/AIDS patients.

Recommended Books

Basic literature:
1. Phthysiology. nats textbook / edited by V. I. Petrenko,. - Kyiv .: VVV "Medicine", 2015. - 472 p.
2. Pulmonology and phthisiology: a textbook in 2 volumes / Ed. Yu.I.Feshchenko, V.P. Melnyk, I.G.Ilnitsky. - Kyiv, Lviv: Atlas, 2009 - 1336 p.
3. Phthysiology. Educational manual / edited by V.P. Melnik, I.G.Ilnitsky. - Kyiv - Lviv: Atlas, 2008. - 304s.
4. Phthysiology. Textbook / Ed. acad. AND I. Tsyganenko, prof. SI. Zaitseva - X .: Fakty, 2004. 390s.
5. Savula MM, Ladny O.Ya. Tuberculosis. Textbook. Ternopil: "UkrmedkNiga", 1999. - 323 p.
6. Unified clinical protocol of primary, secondary (specialized) and tertiary (highly specialized) medical care to adults. Tuberculosis, Order of the Ministry of Health of Ukraine 04.09.2014 № 620.
Additional literature:
1 Phthisiology: a teaching manual. Collection of tasks for test control of knowledge / Ed. VF Moskalenko, VI Petrenko - Vinnitsa: The New Book, 2005. 296s.
2. Tuberculosis of extrapulmonary localization / Yu.I. Feshchenko, IG Ilnitsky, VM Melnik, O.V. Panasyuk; for ed. Yu.I. Feshchenko, IG Ilnitsky - Kyiv: Logos, 1998. - 376 p.
3. Diseases of the respiratory system. Reference book / Yu.I.Feshchenko, V.M.Melnyk, I.G.Ilnitsky. - Kyiv - Lviv: Atlas, 2008. - 497s.
4. Savula MM, Ladny O.Ya., Kravchenko N.S., Slyvka Yu.I. Differential diagnostics of diseases of the lungs and pleura. Ternopil: "UkrmedkNiga", 2000 - 223s.
5. Feshchenko Yu.I. Organization of control of chemo-resistant tuberculosis. Production edition. - Kyiv: Health, 2013. - 704 p.
6. Tuberculosis, HIV / AIDS: teaching. manual / RG Protsyuk, V.F.Moskalenko, V.I.Petrenko and others. Kyiv: Medicine, 2009. - 424 pp.
7. Applied questions of phthysiology of children and adolescence: Textbook / Ed. Ilnitsky I.G., Kostik A.P., Bilozir L.I., - Lviv: Atlas, 2013. - 731 p.
Information resources
1. State institution "Ukrainian Center for the control of social diseases of the Ministry of Health of Ukraine": http://ucdc.gov.ua
2. The site of the National Institute of Phthisiology and Pulmonology named after FG Yanovsky: http://www.ifp.kiev.ua/doc
3. Tuberculosis, pulmonary diseases, HIV infection. Ukrainian Scientific and Practical Journal www.tubvil.com.ua
4. USAID "Strengthening TB Control in Ukraine" Website: http://www.stbcu.com.ua