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Khanty-Mansiysk Autonomous Okrug-Ugra  
"Surgut State University"

Approved by  
Deputy Rector for Academic Affairs  
\_\_\_\_\_ E.V. Konovalova  
"13" June 2024, Record No. 5

PROGRAM  
state final certification  
graduates in the field of study (specialty)  
31.05.01 General medicine  
Orientation (profile) of the program (specialization) -  
specialist  
Qualification (degree) – medical doctor

The program of the state final attestation of graduates has been compiled in accordance with the requirements:

Federal state educational standard of higher education - specialty 31.05.01 Medicine, approved by the Order of the Ministry of Science and Higher Education of the Russian Federation of 12 August 2020 No 988, registered in the Ministry of Justice of the Russian Federation of 26 August 2020 No 59493.

Program authors:

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Coordination of the work program:

Subdivision (department/library)	Date of approval	Full name, signature of head of subdivision
Department of Internal Diseases		Head of department, d.m.s., Professor O.L. Aryamkina _____
Acquisition department		I.I. Dmitrieva _____

The program was reviewed and approved by the meeting of the Department of Internal Diseases  
«6» June, 2024, protocol No 11/1

Head of department, d.m.s., Professor \_\_\_\_\_ O.L. Aryamkina  
(signature)

The program was reviewed and approved by the meeting of the educational and methodological council of the medical institute «6» June, 2024, protocol No 8.

Chairman of EMC, Ph.D., Associate Professor \_\_\_\_\_ E.A.Vasilyeva  
(signature)

## 1. GENERAL CHARACTERISTICS OF THE PROGRAMME

### 1.1 General provisions

The programme of the state final attestation (hereinafter SFA) has been developed in compliance with:

- Federal Law No. 273-FZ «On Education in the Russian Federation», December, 29, 2012;

- Procedure for State Final Attestation on educational programs of higher education - bachelor's, specialist's and master's degree programs, approved by the order of the Ministry of Education and Science of the Russian Federation, June, 29, 2015 No 636, Regulations on the state final attestation of graduates of the Medical Institute STO-2.12.4-18.

State final attestation (hereinafter - GIA) is carried out on the basis of the principle of objectivity of assessment of the quality of training of students to determine the compliance of the results of mastering by students of the educational program in the direction of training 31.05.01 Medical business corresponding requirements of the educational standard.

The program is developed for students of full-time education in the direction of training 31.05.01 Medicine.

GIA of graduates in the direction of training 31.05.01 Medicine is a state (interdisciplinary) examination, consisting of three certification tests (testing, practical skills, interview).

A specific list of final attestation tests included in the GIA of students in a particular area of training is determined by the Federal State Educational Standards of Higher Education in terms of requirements for the final state attestation of the graduate.

The purpose of the state final attestation is to determine the conformity of the results of mastering by students of basic professional educational programs of higher education to the requirements of FSES HE.

To the final state attestation are admitted students who have completed students who have completed the full course of theoretical training and successfully fulfilled all the requirements of the curriculum.

### 1.2 Characteristics of professional activity of graduates who have mastered the specialization program

#### 1.2.1 Types of tasks of professional activity for which the graduates who have mastered the specialist program are prepared:

- medical;
- research;
- organizational and managerial.

#### 1.2.2 List of competencies that the student should possess as a result of mastering the educational program:

Universal competences:

Ability to carry out critical analysis of problem situations on the basis of a systematic approach, to develop a strategy of action (UC-1);

ability to manage the project at all stages of its life cycle (UC-2);  
ability to organize and manage the work of the team, developing a team strategy to achieve the goal (UC-3);  
ability to apply modern communication technologies, including in a foreign language(s), for academic and professional interaction (UC-4);  
ability to analyze and take into account the diversity of cultures in the process of intercultural interaction (UC-5);  
ability to identify and realize priorities of own activity and ways of its improvement on the basis of self-assessment and lifelong learning (UC-6);  
ability to maintain an adequate level of physical fitness to ensure full social and professional activity (UC-7);  
ability to create and maintain in everyday life and in professional activity safe living conditions for preserving the natural environment, ensuring sustainable development of society, including at the threat and occurrence of emergencies and military conflicts (UC-8);  
ability to use basic defectological knowledge in social and professional spheres (UC-9).  
ability to make sound economic decisions in various areas of life (UC-10);  
ability to form an intolerant attitude to manifestations of extremism, terrorism, corrupt behavior and to counteract them in professional activity (UC-11).

General professional competencies:

Ability to implement moral and legal norms, ethical and deontological principles in professional activity (GPC-1);  
ability to conduct and control the effectiveness of measures on prevention, formation of healthy lifestyle and hygienic education of the population (GPC-2);  
ability to counteract and combat doping in sport (GPC-3);  
ability to use medical devices provided by the order of medical care, as well as to conduct patient examinations in order to establish a diagnosis (GPC-4);  
ability to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems (GPC-5);  
ability to organize patient care, provide primary medical and sanitary care, ensure the organization of work and professional decision-making in emergency conditions at the pre-hospital stage, in emergencies, epidemics and mass casualty areas (GPC-6);  
ability to prescribe treatment and control its effectiveness and safety (GPC-7);  
ability to implement and control the effectiveness of medical rehabilitation of the patient, including the implementation of individual rehabilitation and habilitation programs for the disabled, to assess the patient's ability to work (GPC-8);  
ability to realize the principles of quality management in professional activities (GPC-9);  
ability to understand the principles of modern information technologies and use them to solve the problems of professional activity (GPC-10);  
ability to prepare and apply scientific, scientific, production, design, organizational, managerial and regulatory documentation in the health care system (GPC-11).

Professional competencies:  
Type of professional tasks – medical:  
PC-1 Able to establish a diagnosis, determine the development of complications

and carry out measures to provide emergency care for sudden acute illnesses and complications of chronic diseases.

PC-2 Capable and ready to diagnose and treat exacerbations of chronic diseases that are not life-threatening and do not require emergency medical care, and to diagnose and perform emergency measures in case of life-threatening acute diseases.

PC-3 Able to establish a diagnosis, determine the development of complications and carry out measures for diagnosis and management of patients.

PC-4 Able to diagnose pregnancy and manage a pregnant woman at all stages of medical care.

PC-5 Able to develop a treatment plan (medication, non-medication, palliative) based on the established diagnosis, to organize personalized treatment, including for pregnant women, elderly and elderly patients, as well as to evaluate the effectiveness and safety of the therapy provided.

PC-6 Capable of assessing the possibility and effectiveness of rehabilitation or habilitation measures in a patient with loss of body functioning, labor activity.

Type of professional activity tasks - organizational and managerial:

PC-7 Capable of carrying out and controlling the effectiveness of measures for prevention and formation of a healthy lifestyle and conducting sanitary and hygienic work among the population.

PC-8 Capable of maintaining medical records and organizing the activities of medical personnel.

Type of professional activity tasks - research and development:

PC-9 Able to analyze and publicly present medical information on the basis of evidence-based medicine.

PC-10 Capable of participating in the introduction of new methods and techniques aimed at protecting the health of citizens.

PC-11 Able to use modern information technologies and software tools in solving professional tasks.

## 2. THE PROGRAMME OF THE STATE EXAM

### 2.1 List of questions to be submitted to the state examination

On the discipline «Internal Diseases»

1. Coarctation of the aorta. Epidemiology. Hemodynamic changes. Clinical manifestations. Course. Diagnosis and differential diagnosis. Laboratory and instrumental diagnostics. Complications. Principles of therapy. Indications for surgical treatment.

2. Open ductus arteriosus. Epidemiology. Etiology. Hemodynamic disorders. Clinic. Instrumental diagnostics. Differential diagnosis. Complications. Indications for surgical treatment.

3. Congenital defects of the interatrial and interventricular septum. Types. Peculiarities of intra-atrial hemodynamics disorders. Clinical manifestations depending on the defect and stage of the disease. Treatment. Indications to surgical intervention.

4. Myocarditis. Epidemiology. Etiology, pathogenesis. Classification. Clinical picture. Variants of course. Instrumental and laboratory diagnostics. Diagnostic criteria. Differential diagnosis. Prognosis. Complications. Principles of therapy.

5. Exudative pericarditis. Etiology and pathogenesis. Variants of course. Clinical

manifestations. Laboratory and instrumental diagnostics. Differential diagnosis. Treatment taking into account the etiologic factor. Indications for pericardial puncture.

6. Adhesive (constrictive) pericarditis. Etiology. Mechanism of development and peculiarities of blood circulation disturbance. Clinic. Diagnosis. Treatment. Indications for surgical treatment. Prognosis.

7. Cardiomyopathies. Definition. Etiology and pathogenesis. Classification. Main clinical manifestations. Diagnostic criteria. Differential diagnosis. Treatment. Prophylaxis.

8. Extrasystole. Definition. Epidemiology. Etiology. Pathogenesis. Clinical manifestations. ECG-diagnosis. Treatment and prevention of extrasystoles.

9. Paroxysmal tachycardia. Classification. Etiology. Pathogenesis. Clinical picture of an attack of paroxysmal tachycardia. ECG-diagnosis. Emergency therapy. Indications for electrical pulse therapy. Prognosis. Prophylaxis.

10. Atrial and ventricular fibrillation. Etiology and pathogenesis. Classification. Clinical manifestations. ECG-diagnosis. Therapy depending on the form. Indications for electropulse therapy. Complications. Prevention of complications. Prognosis.

11. Conduction disorders. Etiology and pathogenesis. Classification. Clinical manifestations. ECG-diagnosis. Complications. Treatment. Prognosis.

12. Sinus node weakness syndrome (SNWS). Etiology. Clinical manifestations. Principles of diagnosis and therapy. Indications for implantation of an artificial pacemaker.

13. Hypertrophic cardiomyopathy. Contribution of genetic factors. Pathogenesis of intracardiac hemodynamic disorders. Main clinical manifestations. Laboratory and instrumental diagnostics. Differential diagnosis. Variants of course. Prognosis. Medical and surgical treatment.

14. Restrictive cardiomyopathy. Epidemiology. Etiology. Pathogenesis of hemodynamic disorders. Main clinical manifestations. Diagnostic principles. Differential diagnosis. Course and complications. Principles of conservative and operative treatment.

15. Dilated cardiomyopathy. Epidemiology. Etiology. Pathogenesis of hemodynamic disorders. Main clinical manifestations. Diagnostic principles. Differential diagnosis. Course and complications. Principles of conservative and operative treatment.

16. Symptomatic arterial hypertension of renal genesis. Classification. Etiology. Pathogenesis of arterial pressure increase. Features of the clinical picture. Laboratory and instrumental diagnosis. Differential diagnosis. Medication and surgical treatment. Complications. Prognosis.

17. Secondary arterial hypertension of endocrine genesis. Etiology. Pathogenesis. Features of the clinical picture. Laboratory and instrumental diagnosis. Differential diagnosis. Principles of treatment.

18. Systemic lupus erythematosus. Epidemiology. Etiology and pathogenesis. Classification. Clinical picture. Laboratory changes. Course of the disease. Diagnostic criteria. Differential diagnosis. Treatment. Significance of anticytokine therapy. Complications. Prognosis. Prevention.

19. Systemic scleroderma. Epidemiology. Etiology and pathogenesis. Classification. Clinical picture. Laboratory changes. Course of the disease. Diagnostic criteria. Differential diagnosis. Treatment. Significance of anticytokine therapy.

Complications. Prognosis. Prophylaxis.

20. Dermatomyositis. Epidemiology. Etiology and pathogenesis. Classification. Clinical picture. Laboratory changes. Course of the disease. Diagnostic criteria. Differential diagnosis. Treatment. Significance of anticytokine therapy. Complications. Prognosis. Prophylaxis.

21. Rheumatoid arthritis. Definition. Epidemiology. Etiology and pathogenesis. Classification. Clinical manifestations. Laboratory and instrumental methods of diagnosis. Diagnostic criteria. Differential diagnosis. Course. Treatment. Prognosis. Indications for surgical treatment.

22. Ankylosing spondylitis (Bechterew's disease). Epidemiology. Etiology. Pathogenesis. Clinical manifestations. Diagnostic criteria. Laboratory and instrumental diagnostics. Differential diagnosis. Principles of therapy. Prophylaxis.

23. Osteoarthritis. Definition. Etiology. Pathogenesis. Classification. Clinical picture. Diagnostic criteria. Diagnosis. Differential diagnosis. Principles of therapy. Prognosis. Prophylaxis.

24. Gout. Definition. Etiology. Pathogenesis. Classification. Clinical picture. Diagnostic criteria. Diagnosis. Differential diagnosis. Principles of emergency and planned therapy.

25. Reactive arthritis (Reiter's syndrome). Etiology. Pathogenesis. Clinical manifestations. Laboratory and instrumental diagnostics. Differential diagnosis. Treatment. Prophylaxis.

26. Gigantocellular arteritis (Horton's disease). Epidemiology. Etiology and pathogenesis. Clinical picture. Main clinical syndromes. Diagnostic criteria. Laboratory and instrumental diagnostics. Differential diagnosis. Treatment. Prognosis.

27. Nonspecific aortoarteritis (Takayasu's disease). Epidemiology. Etiology and pathogenesis. Clinical picture. Main clinical syndromes. Diagnostic criteria. Laboratory and instrumental diagnostics. Differential diagnosis. Treatment. Prognosis.

28. Nodular periarteritis. Etiology and pathogenesis. Clinical picture. Laboratory and instrumental diagnostics. Clinical variants. Diagnostic criteria. Diagnosis. Differential diagnosis. Treatment. Prognosis. Prevention.

29. Wegener's granulomatosis. Epidemiology. Etiology and pathogenesis. Clinical picture. Course variants. Laboratory and instrumental diagnostics. Diagnostic criteria. Differential diagnosis. Complications. Treatment. Prognosis. Prevention.

30. Goodpasture's syndrome. Epidemiology. Etiology and pathogenesis. Clinical picture. Variants of course. Laboratory and instrumental diagnostics. Diagnostic criteria. Differential diagnosis. Complications. Treatment. Prognosis. Prevention.

31. Schoenlein-Genoch hemorrhagic vasculitis. Epidemiology. Etiology. Pathogenesis. Clinical variants. Diagnostic criteria. Differential diagnosis. Treatment. Complications. Course and outcome.

32. Obliterative thrombangiitis (Winivarther-Burger disease). Etiology and pathogenesis. Clinical picture. Diagnostic criteria. Diagnosis. Differential diagnosis. Treatment.

33. Non-Hodgkin's lymphomas. Classification. Etiology. Pathogenesis. Clinical syndromes. Differential diagnosis. Principles of diagnosis and therapy.

34. Irritable bowel syndrome. Epidemiology. Etiology, pathogenesis. Diagnostic criteria. Clinical picture. Differential diagnosis. Treatment. Prophylaxis.

35. Functional disorders of motor and secretory function of the stomach. Etiology,

pathogenesis. Clinical picture. Course. Diagnostic principles. Differential diagnostics. Treatment. Prognosis. Prophylaxis.

36. Crohn's disease. Epidemiology. Etiology. Pathogenesis. Classification. Intestinal and extraintestinal manifestations. Variants of course. Complications. Laboratory and instrumental diagnostics. Differential diagnosis. Treatment. Prognosis.

37. Ulcerative colitis. Epidemiology. Etiology. Pathogenesis. Classification. Intestinal and extraintestinal manifestations. Variants of course. Complications. Laboratory and instrumental methods of diagnosis. Differential diagnosis. Treatment. Prognosis.

38. Chronic pyelonephritis. Etiology and pathogenesis. Classification. Clinical manifestations. Methods of laboratory and instrumental diagnostics. Principles of therapy. Prognosis. Prevention.

39. Nephrotic syndrome. Definition. Etiology and pathogenesis. Clinical manifestations. Laboratory and instrumental diagnostics. Principles of therapy. Complications. Prognosis. Prevention.

40. Renal amyloidosis. Epidemiology. Etiology and pathogenesis. Classification. Clinical picture depending on the type of amyloidosis. Laboratory and instrumental diagnostics. Treatment. Outcomes. Prognosis.

41. Acute kidney injury. Etiology and pathogenesis. Clinical picture. Stages. Differential diagnosis. Treatment. Indications for extracorporeal methods of treatment. Outcomes. Prognosis.

42. Chronic kidney disease. Epidemiology. Etiology and pathogenesis. Main clinical syndromes. Classification. The concept of CKD. Principles of therapy. Indications for hemodialysis and kidney transplantation.

43. Iron deficiency anemia. Epidemiology. Etiology and pathogenesis. The main clinical syndromes. Laboratory and instrumental diagnosis. Differential diagnosis. Principles of therapy. Complications. Prevention.

44. B12-(folium) - deficiency anemias. Epidemiology. Etiology. Pathogenesis. Main clinical syndromes. Laboratory and instrumental diagnosis. Differential diagnosis. Principles of therapy. Complications. Prognosis. Prevention.

45. Congenital hemolytic anemias. Mechanisms of hemolysis. Classification. Clinical and laboratory signs of membranopathies, enzymopathies and hemoglobinopathies. Differential diagnosis. Principles of therapy. Prognosis.

46. Acquired hemolytic anemias. Etiology and pathogenesis. The most important symptoms in intracellular and intravascular hemolysis. Laboratory diagnosis. Principles of therapy. Complications and their prevention. Prognosis. Indications for surgical treatment.

47. Aplastic anemia. Epidemiology. Etiology and pathogenesis. Main clinical features. Laboratory changes. Diagnostic criteria. Differential diagnosis. Treatment depending on the severity of the disease. Indications for bone marrow transplantation. Prognosis.

48. Agranulocytosis. Definition. Classification. Etiology and pathogenesis. Clinic of immune agranulocytosis. Laboratory and instrumental diagnostics. Treatment. Complications. Prevention.

49. Thrombocytopenias. Classification. Etiology and pathogenesis. Clinical manifestations. Diagnosis and differential diagnosis. Principles of therapy. Indications for splenectomy.

50. Willebrand's disease. Etiology. Pathogenesis. Clinical variants. Diagnostic principles. Differential diagnosis. Planned and emergency therapy. Prophylaxis. Prognosis.

51. Hemophilia. Etiology. Place of hereditary factor in the development of the disease. Pathogenesis of bleeding. Clinical manifestations. Principles of diagnosis. Differential diagnosis. Prognosis. Treatment and prevention of bleeding.

52. Chronic myeloleukemia. Etiology and pathogenesis. Classification. Clinical manifestations. Laboratory and instrumental diagnostics. Differential diagnosis. Principles of therapy. Complications. Indications to bone marrow and peripheral stem cell transplantation. Prognosis.

53. True polycythemia. Etiology and pathogenesis. Main clinical syndromes. Diagnostic criteria. Laboratory and instrumental diagnosis. Differential diagnosis with symptomatic erythrocytosis. Course and outcomes of the disease. Treatment. Prognosis.

54. Chronic lympholeukemia. Epidemiology. Etiology and pathogenesis. Classification. Clinical manifestations. Laboratory and instrumental diagnostics. Differential diagnosis. Principles of therapy. Complications. Prognosis.

55. Multiple myeloma. Epidemiology. Etiology. Pathogenesis. Classifications. Clinical syndromes. Diagnostic criteria. Diagnosis. Differential diagnosis. Principles of therapy. Prognosis.

56. Acute lymphoblastic leukemia. Epidemiology. Etiology and pathogenesis. Classification. Main clinical syndromes. Laboratory and instrumental diagnosis. Differential diagnosis. Course and complications. Principles of therapy, its stages. Complications of cytostatic therapy and their correction. Prognosis and survival rate. Indications for bone marrow transplantation.

57. Acute non-lymphoblastic leukemia. Epidemiology. Etiology and pathogenesis. Classification. Main clinical syndromes. Laboratory and instrumental diagnosis. Differential diagnosis. Course and complications. Principles of therapy, its stages. Complications of cytostatic therapy and their correction. Prognosis and survival rate. Indications for bone marrow transplantation.

58. Lymphogranulomatosis (Hodgkin's disease). Epidemiology. Etiology and pathogenesis. Clinical variants. Clinical picture. Laboratory and instrumental diagnosis. Differential diagnosis. Course and outcomes. Treatment. Prognosis.

59. Emphysema of lungs. The concept of COPD. Epidemiology. Etiology, pathogenesis. Classification. Clinical picture. Diagnostic principles. Treatment.

60. Pulmonary heart. Definition. Classification. Etiology. Pathogenetic significance of pulmonary hypertension. Pathogenesis of hemodynamic changes. Clinical manifestations. Laboratory and instrumental diagnosis. Principles of therapy. Complications. Prognosis.

#### Section «Pulmonology»

1. Differential diagnosis and treatment in bronchial obstruction: laryngeal diseases, angioedema, diseases of the trachea, lungs, mediastinum, hysteria, carcinoid syndrome, nodular periarteritis).

2. Diagnostic algorithm of bronchobstructive syndrome.

3. laboratory diagnostics of bronchobstructive syndrome.

4. Instrumental diagnostics of bronchobstructive syndrome.

5. Modern principles of treatment of obstructive bronchitis and bronchial asthma.

6. Basic therapy of COPD.
7. Indications and contraindications for the use of methylxanthines, B2 agonists, m-cholineblockers, inhaled and systemic corticosteroids.
8. Treatment of bronchobstructive syndrome in patients with CHD, diabetes mellitus.
9. Intensive therapy of asthmatic status.
10. Criteria of effectiveness of treatment of bronchoobstructive syndrome.
11. Differential diagnosis of focal lung diseases: cancer, tuberculosis, TELA, eosinophilic infiltrate, pneumonia of various etiologies.
12. empirical and pathogenetic therapy of out-of-hospital and nosocomial pneumonia. and nosocomial pneumonias.
13. Treatment of acute pneumonia of various etiologies.
14. Intensive therapy of pneumonia of severe course.
15. Differential diagnosis and treatment of pulmonary embolism.
16. Possibilities of instrumental diagnostics of TELA.
17. Tactics of management of patients with TELA, including invasive methods of treatment.
18. Differential diagnosis and treatment of diffuse (disseminated) lung lesions: tuberculosis, sarcoidosis, exogenous allergic alveolitis, Hammen-Rich syndrome, lung lesions in diffuse connective tissue diseases and systemic vasculitis, pneumoconiosis, tumor dissemination.
19. Drug pneumopathies (amiodarone, nitrofurans, etc.).
20. Treatment of sarcoidosis and allergic alveolitis.
21. Emergency therapy for pulmonary hemorrhage.
22. Technique of pleural puncture.
23. Indications and methods of ventilation.
24. Features of the course and therapeutic tactics of pneumonia, COPD in elderly patients.
25. Features of clinical course and treatment of pneumonia, bronchitis, bronchial asthma in pregnant women.

#### Section «Cardiology»

26. Differential diagnosis in heart murmurs: differential diagnosis of acquired and the most common congenital heart defects characterized by the appearance of systolic murmurs.
27. Systolic murmur of "relative" insufficiency of the mitral valve (prolapse of the flaps, impaired tone of papillary muscles, organic myocardial damage). Noises on the large vessels in hypertension of the small and large circulatory circles.
28. Differential diagnosis of heart defects characterized by diastolic murmurs. Significance of instrumental methods of research in the differential diagnosis of heart defects (non-invasive and invasive methods).
29. Possibilities of surgical treatment of heart defects.
30. Differential diagnostics in cardiomegaly: congenital and acquired heart defects and cardiomegaly.  
and acquired heart defects, ischemic heart disease, exudative pericarditis, cardiac tumors, cardiac amyloidosis, myocardial lesions in collagenosis, alcoholism, hemochromatosis, sarcoidosis, primary cardiomyopathies.
31. The value of echocardiography, cardiac scintigraphy, invasive methods

in the diagnosis of rare heart diseases.

32. Diagnosis and treatment of myocardial diseases: non-coronagenic myocardial diseases: myocarditis, cardiomyopathies, myocardiodystrophies.

33. Clinical, instrumental, laboratory methods their recognition, indications for myocardial biopsy.

34. Clinical variants of the course of these diseases.

35. Treatment, including surgical treatment.

36. Indications for heart transplantation.

37. Diagnosis of acute heart failure.

38. Acute left ventricular failure.

39. Pulmonary edema. Provoking factors. Pathogenesis. Characteristics of hemodynamic shifts. Differential diagnosis with other causes of paroxysmal dyspnea. Outcomes. Prognosis. Emergency therapy.

40. Features of treatment of pulmonary edema on the background of arterial hypertension and hypotension, as well as in the combination of cardiac and bronchial asthma.

41. Acute right ventricular failure.

42. Diagnosis of chronic heart failure.

43. Chronic left-, right-ventricular and biventricular heart: insufficiency. Etiology, epidemiology, clinic, instrumental diagnostics, modern drug and non-drug therapy, prophylaxis.

44. Differential diagnosis in arterial hypertension.

45. Possibilities of differentiation of hypertension and symptomatic hypertension. Indications for the use of invasive methods of investigation (including aortography and renal puncture biopsy).

46. Early detection of malignant hypertension syndrome. Modern methods of treatment of arterial hypertension.

47. Emergency therapy of hypertensive crisis.

48. Peculiarities of treatment of arterial hypertension in elderly people and senile age, as well as with pronounced atherosclerosis.

49. Differential diagnosis in chest pain: features of coronary and non-coronary pain (including extracardiac).

50. Possibilities of electrocardiography in the differentiation of pain (drug and load tests).

51. Indications for the use of coronary angiography, atrial stimulation test.

52. Features of treatment of pain depending on its origin

53. Treatment of ischemic heart disease.

54. Suppression and prevention of angina and pain attacks in myocardial infarction, including in the prehospital period.

55. Medical tactics in unstable angina pectoris. Surgical treatment of IBS. Balloon coronary angioplasty.

56. Rehabilitation of patients with myocardial infarction. Phases (stages) of rehabilitation.

57. The notion of physical, psychological, professional and socio-economic aspects of rehabilitation.

58. Types of physical training program and basic methods of control in rehabilitation of patients with coronary artery disease.

59. Prevention of coronary heart disease (primary and secondary).
  60. Differential diagnosis in cardiac arrhythmias and conduction disorders. Peculiarities of clinical manifestations and the importance of the ECG-method in diagnosis.
  61. Therapy depending on the type of arrhythmia, its tolerance and the nature of the heart lesion. Indications and contraindications for defibrillation.
  62. Diagnosis and treatment of supraventricular and ventricular tachycardia.
  63. Features of management of patients with permanent and paroxysmal form of atrial fibrillation.
  64. Diagnosis and treatment of ventricular preexcitation syndrome and sinus node weakness syndrome.
  65. The importance of identifying "high" and "low" heart block, indications for implantation of an artificial pacemaker (permanent and temporary).
  66. Resuscitation measures in case of ventricular asystole
  67. Differential diagnosis and treatment of arterial hypotension.
  68. Hypotension as an individual variant of the norm, adaptive hypotension.
  69. Essential, symptomatic, idiopathic orthostatic arterial hypotension. The concept of hypotension.
  70. Individual selection of drug therapy. Physiotherapy. Dispenserization. Labor expertise and employment.
  71. Emergency therapy of acute adrenal insufficiency.
  72. Differential diagnosis in shock.
  73. Distinguish shock from syncope and collapse. Features of cardiogenic, arrhythmic, painful shock.
  74. Shock in myocardial infarction and pulmonary embolism.
  75. Treatment of cardiogenic shock in myocardial infarction.
  76. The role of intensive care units in the treatment of shock.
  77. Treatment of septic-toxic shock
  78. Features of the course and therapeutic tactics in arterial hypertension and ischemic heart disease in elderly patients.
  79. Therapeutic tactics in arterial hypertension, heart defects, myocardial diseases in pregnant women.
- Section «Nephrology»
80. Differential diagnosis in urinary syndrome.
  81. Diagnostic criteria for diseases manifested predominantly by hematuria, pyuria, proteinuria
  82. Possibilities of laboratory and instrumental methods of research.
  83. Indications for renal puncture biopsy.
  84. Renal damage in diabetes mellitus, systemic connective tissue diseases, systemic vasculitis, myeloma disease.
  85. Peculiarities of therapy of the main disease in case of accession and kidney damage.
  86. Differential diagnosis in edema: clinical features of edema in kidney, heart, liver, endocrine disorders, in disorders of venous and lymphatic circulation.
  87. Idiopathic edema syndrome.
  88. Treatment taking into account the peculiarities of different types of edema.
  89. Differential diagnosis in nephrotic syndrome.

90. Diseases manifested by nephrotic syndrome.
  91. The value of determining selective and non-selective proteinuria, renal puncture biopsy, biopsy of gingival and rectal mucosa to identify etiology.
  92. Features of therapy of the main disease with the accession of nephrotic syndrome.
  93. Treatment of nephrotic syndrome.
  94. Features of the course of renal diseases and therapeutic tactics in elderly patients.
  95. Features of treatment of gestational pyelonephritis.
  96. Possible complications of diuretic therapy.
- Section «Gastroenterology»
97. Algorithm of differential diagnosis in abdominal pain.
  98. False «acute abdomen» in diseases of internal organs: lower lobe pleuropneumonia, basal pleurisy, gastralgic form of myocardial infarction, dissecting aortic aneurysm, acute right ventricular failure of various genesis, hemorrhagic vasculitis, diabetic ketoacidosis, Addisonian crisis.
  99. Tactics of the therapist in the detection of acute surgical pathology of the abdominal cavity.
  100. Emergency therapy in acute adrenal insufficiency.
  101. Differential diagnosis in esophageal syndrome and gastric dyspepsia.
  102. Algorithms of examination of patients with swallowing disorders, nausea and vomiting.
  103. Recognition of diseases of the gastrointestinal tract, central nervous system, metabolism, vestibular apparatus, endocrine disorders, diseases of the cardiovascular system, infectious and acute surgical pathology, acute and chronic exogenous intoxication, complications of drug therapy.
  104. Antiemetic drug therapy.
  105. Differential diagnosis in intestinal dyspepsia.
  106. Diseases manifested by diarrhea (tumors of the gastrointestinal tract, nonspecific ulcerative colitis, Crohn's disease, chronic enterocolitis, mono- and disaccharidase malabsorption, celiac disease, functional disorders, infectious diseases).
  107. Impaired absorption syndrome.
  108. Constipation (colonic achalasia, overstretched colon syndrome, colorectal tumors, diverticulosis, diseases of the distal colon, irritable bowel syndrome).
  109. Diagnostic possibilities (X-ray contrast examination of the intestine, fecal examination, enzymes, endoscopic methods, biopsy of the intestinal mucosa).
  110. Differential diagnosis and treatment of gastrointestinal bleeding.
  111. Diagnostic criteria of bleeding, its magnitude, localization and causes.
  112. Therapeutic tactics in various diseases complicated by gastrointestinal bleeding.
  113. Indications for surgical intervention.
  114. Differential diagnosis in hepatomegaly.
  115. Differential diagnosis in hepatolienal syndrome.
  116. The main causes of development (chronic hepatitis and liver cirrhosis, accumulation diseases, liver tumors, hepatic vascular diseases, diseases of blood and hematopoietic organs, heart disease).
  117. Possibilities of timely recognition of the disease, the role of blood enzyme

spectrum studies, radioisotope and echographic methods, X-ray contrast including angiography, morphologic methods of investigation.

118. Treatment of chronic hepatitis and cirrhosis of the liver.

119. Differential diagnosis in jaundice.

120. Diagnostic criteria for various forms of jaundice, flowing with unconjugated (suprahepatic and hepatic forms) and conjugated bilirubin (hepatic-cellular and obturation jaundice).

121. Possibilities of laboratory and instrumental methods of investigation (including X-ray, endoscopic and ultrasound methods).

122. Treatment in various forms of jaundice: parenchymatous jaundice, hereditary syndromes, hemolytic jaundice, drug-induced hepatopathies.

123. Emergency therapy of acute liver failure.

124. Differential diagnosis and treatment of diseases of biliary tract and pancreas: cholelithiasis, chronic cholecystitis, biliary dyskinesia, various clinical variants of chronic pancreatitis, pancreatic cancer.

125. Emergency treatment of biliary colic and acute pancreatitis.

126. Features of the course and therapeutic tactics of diseases of the gastrointestinal tract and liver in elderly patients.

127. Features of treatment of exacerbation of chronic cholecystitis, pancreatitis, gastric and duodenal ulcer in pregnant women.

Section «Hematology»

128. Differential diagnosis in anemic conditions.

129. Classification of anemias. Program of diagnostic search in anemic syndrome.

130. Treatment of anemias of different origin. Therapeutic tactics. Indications for hemotransfusion. Supportive therapy.

131. Differential diagnosis in lymphadenopathy and splenomegaly.

132. Diseases manifested by local and diffuse enlargement of lymph nodes and splenomegaly. A diagnostic search program.

133. Significance of morphologic method of investigation in lymphadenopathies. Indications for splenectomy.

134. Differential diagnosis and treatment of diseases manifested by hemorrhagic syndrome.

135. Classification of hemorrhagic diathesis.

136. Rational use of modern laboratory methods of investigation of the blood coagulation system.

137. Examination programs in hemorrhagic diathesis.

138. Treatment of hemorrhagic diathesis

139. Diagnostic criteria of bleeding, its size, localization and cause.

140. Therapeutic tactics in various diseases complicated by bleeding. Indications for surgical intervention.

141. Differential diagnosis and treatment of hemoblastosis.

142. Reliable diagnostic criteria and rational therapy of acute leukemia, chronic lympholeukemia and myeloleukemia, lymphogranulomatosis, myeloma disease.

143. Leukemoid reactions.

144. Benign hypergammaglobulinemias.

145. Complications of drug therapy of hemoblastosis.

146. Cytostatic disease (causes, clinic, treatment).
147. Diagnosis, treatment and prevention of thrombosis.
148. Anticoagulant and thrombolytic therapy in the clinic of internal medicine.
149. Modern ideas about the mechanisms of thrombosis.
150. Thrombophilias, their classification.
151. Clinical, instrumental, laboratory diagnosis of thrombosis of various localization.
152. Anticoagulant, antiaggregant, thrombolytic therapy (drugs, indications, contraindications, possible complications, their prevention).
153. DIC syndrome in the clinic of internal medicine.
154. Diseases causing DIC syndrome.
155. Clinical variants of acute DIC, diagnosis, treatment, prevention.
156. Chronic intravascular blood microclotting, its role in the pathogenesis of various internal diseases. in the pathogenesis of various internal diseases. Possibilities and importance of its correction.

#### Section «Rheumatology»

157. Algorithm of differential diagnosis in joint lesions.
158. Features of joint syndrome in systemic connective tissue diseases, paraneoplastic reactions, gout and deforming osteoarthritis.
159. Possibilities of early diagnosis of rheumatoid arthritis, Bechterew's disease, gout, Reiter's and Sjögren's syndromes.
160. Reactive arthritis.
161. Treatment of rheumatoid arthritis.
162. Treatment of gout, acute attack of gout.
163. Treatment of Reiter's syndrome.
164. Treatment of Behterev's disease.
165. Differential diagnosis of systemic connective tissue diseases: systemic lupus erythematosus, polyarteritis nodosa, systemic scleroderma, dermatopolymyositis (non-oncologic origin), Wegener's granulomatosis, Goodpasture syndrome.
166. Treatment of systemic lupus erythematosus.
167. Treatment of polyarteritis nodosa.
168. Treatment of systemic scleroderma.
169. Treatment of dermatopolymyositis (of non-oncologic origin).
170. Treatment of Wegener's granulomatosis.
171. Treatment of Goodpasture's syndrome.
172. Dispensary management. Prevention of side effects of drugs used in rheumatology.

173. Anti-inflammatory and immunosuppressive therapy in the clinic of internal medicine: the most important groups of non-steroidal and steroidal anti-inflammatory drugs and immunosuppressors used in the clinic.

#### Section «Endocrinology»

176. Differential diagnosis in hyperglycemia and glucosuria.
177. Treatment of diabetes mellitus in patients with myocardial infarction, acute pneumonia, other inflammatory diseases and during surgical interventions.
178. Principles of diet construction in diabetes mellitus.
179. Oral antidiabetic drugs, possibilities of their use. their application. Characterization of their action.

180. Indications for the prescription of insulin.
181. Fast-acting simple insulin; medium-acting insulins and long-acting insulins.
182. Insulin overdose syndrome. Side effects of insulin.
183. Measures to combat insulin resistance.
184. Differential diagnosis and treatment of diabetic coma.
185. Ketoacidotic and hypoglycemic comas. Etiology and pathogenesis. Clinical picture. Diagnostic criteria. Emergency therapy. Prognosis, prophylaxis.
186. Characterization of hyperosmolar and lacticidemic coma, cerebral coma developing with inadequate therapy of ketoacidotic coma.
187. Differential diagnosis and treatment of diseases manifested by thyrotoxicosis and hypothyroidism.
188. Laboratory verification of increased and decreased thyroid function.
189. Diseases leading to thyrotoxicosis and hypothyroidism, their diagnostic criteria.
190. The concept of subclinical and oligosymptomatic hypothyroidism.
191. The importance of its timely diagnosis.
192. Treatment of diffuse toxic goiter, autoimmune and subacute thyroiditis.
193. Emergency therapy of thyrotoxic crisis
194. Differential diagnosis of menopausal syndrome
195. Psychovegetative disorders. Changes in the cardiovascular system, bone system, endocrine glands in menopausal syndrome.
196. Diagnosis. Treatment. The role of psychotherapy in the treatment of menopausal neurosis. Medication methods of treatment. Hormonal therapy in pre- and postmenopause. Indications and contraindications to the appointment of androgens and estrogens.
197. Course of the disease. Prognosis. Prevention of pathologic course of the menopausal period.

#### On the discipline «Clinical Immunology»

1. Critical periods of immune system functioning at the postnatal stage of development.
2. Clinical and immunological characterization of variants of primary immunodeficiency states.
3. Approaches to therapy of primary immunodeficiency states.
4. Causes of development of pseudoallergic diseases in children at an early age.
5. Contact dermatitis.
6. Baseline therapy of bronchial asthma and methods of its control.
7. Recurrent urticaria in children: diagnosis, treatment, and prevention.
8. Allergic rhinitis: diagnosis and methods of therapy.
9. Atopic dermatitis in children: modern approaches to diagnosis and treatment.
10. Pollinosis in children: diagnosis and methods of treatment.
11. Food allergy: diagnosis, clinical manifestations, approaches to treatment. treatment approaches.
12. Pseudoallergic conditions: difdiagnosis by mechanism of development with allergopathology, principles of treatment.

13. Systematization of autoimmune diseases, immunopathogenesis, diagnosis and principles of treatment.
14. Principles and methods of immunoprophylaxis, immunotherapy, immunorehabilitation.
15. Angioneurotic Quincke's edema.
16. Anaphylactic shock.
17. Toxic epidermal necrolysis.
18. Autoimmune thyroid diseases in children: clinic, immunodiagnosis, principles of treatment.
19. Autoimmune hemolytic anemia in children.
20. Vaccine prophylaxis. Modern calendar of vaccinations.
21. Immunorehabilitation in the group of frequently ill children.

#### On the discipline «Phthiology»

1. Deontology in phthisiatry.
2. Features of clinical examination of patients with tuberculosis. The main clinical symptoms of tuberculosis
3. laboratory, instrumental diagnostics of tuberculosis.
4. Tuberculin diagnostics.
5. Radiologic diagnostics of tuberculosis. Fluorographic examination of the population.
6. Clinical classification of tuberculosis. Formulation of clinical diagnosis of a patient with respiratory tuberculosis.
7. Tuberculosis dispensary, its tasks for the timely detection of tuberculosis and its prevention.
8. Measures to diagnose tuberculosis, treatment and dispensary observation of patients. Cure of tuberculosis.
9. Small and large residual changes after cure of tuberculosis. Temporary and permanent disability of patients with pulmonary tuberculosis.
10. Work of institutions of the general medical and preventive network on prevention of tuberculosis.
11. TB vaccination with BCG and BCG-M for children, adolescents and adults. and adults. Indications and contraindications. Evaluation of vaccination effectiveness, possible complications.
12. Work of institutions of the general medical and preventive network to detect tuberculosis.
13. Groups of persons at high risk of tuberculosis, methods of their examination and tuberculosis prophylaxis
14. Primary tuberculosis. Primary period of tuberculosis infection, tuberculosis intoxication.
15. Tuberculosis of intrathoracic lymph nodes.
16. Primary tuberculosis complex. Pathogenesis, diagnosis, clinic, treatment, differential diagnosis.
17. Miliary pulmonary tuberculosis. Pathogenesis, diagnosis, clinic, treatment, differential diagnosis.
18. Disseminated pulmonary tuberculosis. Pathogenesis, diagnostics, clinic, treatment, differential diagnostics.

19. Tuberculous meningitis. Pathogenesis, diagnosis, clinic, treatment, differential diagnosis.
20. Focal pulmonary tuberculosis. Fresh and chronic focal tuberculosis. Pathogenesis, diagnosis, clinic, treatment, differential diagnostics.
21. Tuberculoma of lungs. Pathogenesis, diagnosis, clinic, treatment, differential diagnosis.
22. Infiltrative pulmonary tuberculosis. Limited (rounded) and widespread infiltrates. Pathogenesis, clinic, treatment, differential diagnostics.
23. Caseous pneumonia. Pathogenesis, clinic, treatment, differential diagnosis.
24. Cavernous, fibrous-cavernous pulmonary tuberculosis. Pathogenesis, diagnosis, clinic, treatment, differential diagnosis.
25. Cirrhotic pulmonary tuberculosis. Limited and widespread cirrhosis. Pathogenesis, diagnostics, clinic, treatment, differential diagnostics
26. Tuberculous pleurisy. Exudative and fibrinous pleurisy. Pathogenesis, diagnosis, clinic, treatment, differential diagnosis.
27. Pulmonary tuberculosis combined with dust occupational diseases.
28. Pulmonary tuberculosis combined with HIV-infection.
29. Pulmonary tuberculosis combined with lung cancer.
30. Pulmonary tuberculosis combined with CNCD.
31. Pulmonary tuberculosis combined with peptic ulcer disease.
32. Pulmonary tuberculosis combined with diabetes mellitus.
33. Pulmonary tuberculosis combined with alcoholism, drug addiction, mental illnesses.
34. Pulmonary hemorrhage. Pathogenesis, diagnostics, principles of treatment and prophylaxis.
35. Spontaneous pneumothorax, atelectasis. Pathogenesis, diagnosis, principles of treatment and prevention.
36. Pulmonary insufficiency, amyloidosis. Pathogenesis, diagnosis, principles of treatment and prevention.
37. Differential diagnosis of complications of tuberculosis.
38. Treatment of tuberculosis.
39. Antituberculosis drugs.
40. General principles and methods of chemotherapy of tuberculosis.
41. Combinations of drugs and drug regimens.
42. Indications for chemotherapy in the inpatient setting and outpatient.
43. Methods of surgical treatment of patients with respiratory tuberculosis.
44. Indications for various types of surgical interventions
45. Extrapulmonary forms of tuberculosis.
46. Tuberculosis of the lymphatic system. Peripheral lymphadenitis, mesadenitis. Diagnosis, treatment and differential diagnosis
47. Clinical symptoms and methods of examination of patients with tuberculosis of the urogenital system
48. Tuberculosis of bone and joint system.
49. Features of detection of tuberculosis of bones and joints.
50. Clinical forms of tuberculosis of bones and joints.
51. Tuberculosis of the spine.
52. Complications of pulmonary tuberculosis - spontaneous pneumothorax,

pulmonary hemorrhage, pulmonary-cardiac failure. Emergency care. Methods of treatment and prevention.

53. Tuberculosis of the central nervous system.

54. Tuberculous meningitis.

55. Tuberculosis of the eyes.

In the discipline «Public health and public health care»

1. Aims, objectives, content of the subject "Organization of Health Care and Public Health"

2. Levels of study and criteria for assessing public health.

3. Factors determining public health.

4. Methods of studying the state of public health.

5. Problems of social policy in the country.

6. Criteria, indicators of health at the individual, group, social level.

7. Risk factors of disease development.

8. Additional criteria for determining public health.

9. Methods of calculating relative values.

10. The impact of migration on public health. The significance of urbanization in the development of modern society.

11. The main indicators of natural population movement. Natural population growth, factors affecting it. Unnatural population loss.

12. Influence of medical and social factors on the level of fertility.

13. The concept of «live birth» and «stillbirth».

14. Influence of medical and social factors on the mortality rate.

15. Methods of calculation and analysis of mortality rates.

16. Maternal mortality, methodology of study, level, trends, factors affecting maternal mortality.

17. Factors affecting the level of infant and perinatal mortality.

18. Life expectancy at birth and average life expectancy, the essence and significance of these indicators.

19. Characteristics of the demographic situation in Russia and abroad at the present stage.

21. General morbidity on the circulation in polyclinics and outpatient clinics. Methods of study: unit of observation, accounting and reporting documents and their content.

20. Hospitalized morbidity. Methods of study: unit of observation, accounting and reporting documentation, analysis of indicators (level, structure of morbidity, etc.).

21. Morbidity of the population according to medical examinations. Types of medical examinations (preliminary, periodic, targeted). Methods of study, accounting documents, indicators.

22. Morbidity of the population according to the data on causes of death, methodology of study, indicators. Single and multiple causes of death, the importance of their analysis.

23. Principles and features of construction of the International Statistical Classification of Diseases and Health Related Problems.

24. LPU of public (state and municipal) and private health care.

25. Types of LPP institutions for the population.

26. The main types of LPU activities.

27. Main directions (elements) of primary health care.
28. Criteria for evaluation of PHC organization activities.
29. General principles of organization of primary health care for the population.
30. Organizational structure of the city polyclinic for adults.
31. Organizational structure of the city hospital for adults.
32. Organization of the reception of patients with therapeutic, diagnostic, preventive purposes.
33. Registry, its purpose.
34. Methods of analyzing and evaluating the activities of outpatient and polyclinic institutions and inpatient facilities.
35. Specialized medical care-organization of work.
36. Principles of organization of outpatient-polyclinic, hospital specialized care.
37. Dispensary, types of dispensaries, structure, organization of work.
38. The main forms of primary accounting medical documentation dispensaries (oncology, tuberculosis, drug addiction, skin and venereal).
39. Features of the work of the AIDS prevention and control center.
40. Performance indicators of dispensaries.
41. List of basic laws regulating activities in health care.
42. Constitution of the Russian Federation. Civil Code of the Russian Federation.
43. Law of the Russian Federation «On the Fundamentals of Health Protection of Citizens in the Russian Federation»
44. Law of the Russian Federation «On Protection of Consumer Rights».
45. Law of the Russian Federation «On Medical Insurance of Citizens in the Russian Federation».
46. Law of the Russian Federation «On Transplantation of Human Organs and (or) Tissues».
47. Federal Law «On Immunoprophylaxis of Infectious Diseases».
48. Criminal Code of the Russian Federation
49. Definition of private medical practice.
50. The right to engage in private medical practice.
51. Persons allowed to engage in private medical practice.
52. Definition of the concept of traditional medicine.
53. Persons allowed to practice traditional medicine.
54. Methods of traditional medicine used in LPU.
55. Preventive measures provided for illegal practice of traditional medicine.
56. Content of the basic principles of management.
57. Basic functions of management.
58. Styles and methods of management.
59. Management of the health care system in the Russian Federation.
60. Basics of public health and health care forecasting.
61. Principles and types of planning in public health care.
62. Methods of planning in public health.
63. Calculation of the required number of beds.
64. Medical, social and economic efficiency of health care, methods of calculation.

65. Financing of health care, general provisions.
66. Sources of health care financing.
67. Planning and spending of financial resources by budgetary health care institutions.
68. Compulsory medical insurance, the essence of the concept.
69. Subjects and participants of compulsory medical insurance.
70. The main principles of the development of compulsory medical insurance.
71. Basic and territorial MHI program.
72. The main sources of formation of MHI funds.
73. Functions of the federal and territorial MHI funds.
74. Assessment of the quality of medical care at different levels of its provision.
75. Legislation on medical insurance.
76. Features of voluntary medical insurance.
77. Differences between VMI and VHI.
78. Components of the quality of medical care, characterization of quality.
79. Strategy of continuous improvement of the quality of medical care.
80. Development and implementation of quality plans in medical organizations.
81. Patient management protocols, clinical and health and economic standards.
82. Intradepartmental and non-departmental quality control of medical care.
83. Standardization in medicine and public health.
84. Assessment of the quality of medical care at different levels of its provision.
85. Labor capacity, medical criteria.
86. Social criteria of working capacity.
87. Types of temporary disability.
88. Functions of the attending physician in the examination of temporary disability.
89. Tasks of the medical commission.
90. The main functions of the certificate of incapacity for work, methods of its issuance in health care organizations.
91. Categories of citizens entitled to receive certificates of incapacity for work.
92. Categories of medical workers authorized to issue certificates of incapacity for work.
93. The procedure for issuing certificates of incapacity for work in cases of illness, injury, poisoning, in cases of pregnancy and childbirth.
94. The procedure for issuing certificates of incapacity for work for the period of sanatorium-resort treatment.
95. Basic concepts used in conducting ITU.
96. Medical and Social Expert Commissions (MSEC): levels (bureaus, main bureau), composition, functions.
97. The procedure for referring citizens to the MSE.
98. Causes of disability.
99. Disability groups, criteria for their determination, terms of re-evaluation.
100. Rehabilitation of disabled people: definition, types.
101. Methods of calculating generalizing coefficients

102. Methods of calculating relative values.
  103. The concept of relative quantities.
  104. Types of relative quantities - extensive, intensive, ratio, visibility, their definition, methods of calculation, scope of application and their characteristics.
  105. Methods of comparison of different statistical aggregates.
  106. Methods of evaluating the interaction of factors.
  107. Types of dynamic series.
  108. Indicators of dynamic series, their calculation and practical application.
- «Clinical Pharmacology» discipline
1. Definitions: drug, drug product.
  2. Legal basis of drug circulation in Russia: Federal Law «On Circulation of Medicines».
  3. Definitions: clinical pharmacology and pharmacotherapy.
  4. Sections of clinical pharmacology.
  5. Types of pharmacotherapy.
  6. Differences between the international nonproprietary name and trade name of a drug product.
  7. What pharmacokinetic processes are distinguished?
  8. What is the role of transporters in drug pharmacokinetics?
  9. Name the factors affecting the processes of absorption, distribution, metabolism and excretion of drugs.
  10. Definitions of antagonists, agonists, partial agonists.
  11. Types of drug target molecules (receptors, enzymes, ion channels).
  12. Types of pharmacologic response: expected pharmacologic response, hyperresponsiveness, tachyphylaxis, idiosyncrasy.
  13. Principles of drug efficacy monitoring programs.
  14. Acute pharmacologic test (concept, purposes, indications, rules of conduct).
  15. Methods for assessing the impact of medicines on quality of life.
  16. Indications for the prescription of antibacterial agents.
  17. Groups of chemotherapeutic agents.
  18. Antimicrobials in the treatment of respiratory diseases.
  19. Antimicrobials in the treatment of kidney and urinary tract diseases.
  20. Antimicrobials in the treatment of infections of the digestive tract.
  21. The most rational combination of antimicrobials.
  22. Undesirable reactions of antimicrobials.
  23. Drugs that increase blood pressure?
  24. What are the indications for the use of adrenaline, norepinephrine, mesaton?
  25. What are the main classes of antihypertensive drugs used for the long-term treatment of arterial hypertension?
  26. List the methods of monitoring efficacy in the use of antihypertensive and antianginal medications.
  27. List the methods of safety monitoring in the use of  $\beta$ -adrenoblockers.
  28. What types of adverse drug reactions can angiotensin prefraction enzyme inhibitors cause?
  29. What types of adverse drug reactions can organic nitrates cause?

30. Groups of drugs for the treatment of heart failure, pharmacokinetics, pharmacodynamics, indications, contraindications, drug interactions, dosing regimen depending on age.
31. Antiarrhythmic agents pharmacokinetics, pharmacodynamics, indications, contraindications, drug interaction, dosage regimen, depending on age.
32. Classification of anticoagulants and antiaggregants?
33. What is the mechanism of action of different groups of anticoagulants and antiaggregants?
34. What are the indications for the use of anticoagulants and antiaggregants?
35. What are the most common adverse reactions when using anticoagulants and antiaggregants? What are the risk factors for their development?
36. How to carry out coagulation control when using anticoagulants and antiaggregants?
37. Drugs affecting bronchial conduction, groups of drugs.
38. Drugs used for symptomatic treatment of bronchopulmonary diseases pharmacokinetics, pharmacodynamics, indications, contraindications, drug interaction, dosage regimen.
39. Drugs that reduce inflammation in the respiratory tract pharmacokinetics, pharmacodynamics, indications, contraindications, drug interactions, dosing regimen depending on age.
40. Expectorant and antitussive drugs.
41. Antihistamine drugs, classification, pharmacokinetics, pharmacodynamics, indications, contraindications, drug interaction, dosage regimen depending on age.
42. Medicines used in diseases of digestive organs.

#### In the discipline «Surgery»

1. Purulent diseases of pleura. Classification. Clinic. Diagnosis. Conservative and surgical treatment. Indications for drainage of the pleural cavity.
2. Acute appendicitis. Classification. Postoperative complications. Their clinic. Diagnosis. Treatment.
3. Postcholecystectomy syndrome. Definition of the concept. Classification. Clinic. Diagnosis. Treatment.
4. Diverticulosis of the colon. Classification. Clinic. Diagnosis. Indications for surgical treatment. Types of operations.
5. Diseases of the operated stomach. Classification. Causes of occurrence. Clinical manifestations. Methods of diagnostics. Treatment.
6. Peritonitis. Classification. Clinic. Diagnosis. Differential diagnosis. Treatment.
7. Appendicular infiltrate. Clinic. Diagnosis. Differential diagnosis. Treatment.
8. Acute pancreatitis. Classification. Complications. Clinic. Diagnosis. Methods of treatment.
9. Thrombophlebitis of superficial veins of the lower extremities. Etiology. Pathogenesis. Classification. Clinic. Diagnosis. Treatment.
10. Peptic ulcer disease of the stomach and 12-peristal colon. Classification of bleeding. Pathologic anatomy. Pathogenesis of disorders. Clinic. Diagnosis. Treatment.
11. Chronic pancreatitis. Cysts and fistulas of the pancreas. Classification. Clinic. Diagnosis. Principles of surgical treatment.

12. Irreparable and pinched hernias. Differential diagnosis. Principles of treatment.
13. Thyroiditis and strumitis. Etiology. Pathogenesis. Clinic. Diagnosis. Differential diagnosis. Treatment.
14. Postoperative hernias. Etiology and pathogenesis. Clinic. Diagnosis. Prevention and treatment.
15. Portal hypertension. Classification. Clinic. Diagnosis. Principles of surgical treatment.
16. Abscess and gangrene of lungs. Classification. Clinic. Diagnosis. Methods of treatment.
17. Intestinal fistulas. Classification. Clinic, diagnosis and differential diagnosis. Treatment.
18. Ileo-femoral venous thrombosis. Etiology. Pathogenesis. Clinic. Diagnosis. Indications for various methods of treatment.
19. acute thrombosis of the common femoral vein. Etiology. Pathogenesis. Clinic. Diagnosis. Treatment.
20. Obturation of common bile duct (choledocholithiasis, strictures, tumors). Clinic. Diagnostics and differential diagnostics. Treatment.
21. Obturation intestinal obstruction. Etiology. Pathogenesis. Clinic. Diagnosis. Pathogenetic treatment.
22. Obliterating thrombangiitis. Etiology. Pathogenesis. Clinic, diagnostics. Principles of conservative and surgical treatment.
23. Postthrombotic syndrome. Differential diagnosis. The importance of determining the patency and the state of the deep vein valve apparatus for the choice of treatment method.
24. Ulcerative colitis. Differential diagnosis. Indications to surgical treatment.
25. Acute cholecystitis. Classification. Complications. Clinic. Diagnosis. Methods of treatment.
26. Acute appendicitis. Complications before surgery. Clinic. Diagnosis. Treatment of preoperative complications.
27. Hernias of the esophageal opening of the diaphragm. Clinic. Diagnosis. Treatment.
28. Spontaneous pneumothorax. Causes. Clinic. Diagnosis. Treatment.
29. Achalasia cardia. Clinic. Diagnosis. Differential diagnosis. Treatment.
30. Acute thrombosis of deep veins of the lower leg. Clinic. Diagnosis. Differential diagnosis. Treatment.
31. Mechanical jaundice. Clinic. Diagnosis. Differential diagnostics. Types of operations. Indications for operations and their terms.
32. Blunt traumas of the abdomen. Damage to parenchymatous organs. Principles of diagnosis and treatment.
33. Mediastinitis. Etiology. Clinic. Diagnosis. Treatment.
34. Acute intestinal obstruction. Classification. Peculiarities of water-electrolyte balance and acid-base state disturbance in different periods of the course of acute obstruction. Pathogenetic correction.
35. Bleeding from varicose veins of esophagus and cardia. Differential diagnostics. Conservative treatment. Methods of surgical treatment.
36. Ulcerative colitis. Complications. Methods of surgical treatment.

37. Groin hernias. Complications. Clinic. Diagnosis. Principles of treatment.
38. Femoral hernias. Complications. Clinic. Diagnosis. Differential diagnosis. Methods of surgery.
39. Peritonitis. Classification (by clinical course, localization, nature of effusion and pathogen, by stage). Clinic. Diagnosis. Methods of treatment.
40. Detached peritonitis (subhepatic, interintestinal, subdiaphragmatic, pelvic abscesses, pustules of ileocecal region). Causes of their occurrence. Clinic. Diagnosis. Treatment.
41. Crohn's disease. Clinic. Diagnosis. Differential diagnosis. Treatment.
42. Obliterating endarteritis. Etiology. Pathogenesis. Clinic. Stages of the disease. Diagnosis. Principles of conservative treatment. Indications to surgical treatment. Operations on the sympathetic nervous system.
43. Pinched hernias. Types of impingement. False impingement. Sham repositioning. Clinic. Diagnosis. Treatment. Features of operative technique. Determination of the viability of the impinged organ. Tactics in case of doubtful diagnosis.
44. Pinched inguinal hernia. Clinic. Diagnosis. Differential diagnosis. Treatment.
45. Acute thrombosis of the main veins of the lower limbs. Complications. Clinic. Diagnosis. Treatment.
46. Hemorrhoids. Classification. Clinic. Diagnosis. Treatment.
47. Hemorrhoids. Complications. Clinic. Diagnosis. Differential diagnosis. Choice of treatment method. Preoperative preparation. Management of the postoperative period.
48. Occlusive diseases of abdominal aorta and iliac arteries. Leriche's syndrome. Classification. Differential diagnosis. Indications to surgical treatment.
49. Dynamic intestinal obstruction. Clinic. Differential diagnosis. Principles of conservative and surgical treatment.
50. Atherosclerosis of lower limb vessels. Clinic. Diagnosis. Treatment.
51. Strangulation intestinal obstruction. Obstruction, knot formation and impingement. Features of etiology and pathogenesis. Clinic. Diagnosis. Types of operations. Indications for intestinal resection.
52. Euthyroid goiter. Etiology and pathogenesis. Classification. Clinic, diagnostics. Treatment. Indications for surgery. Prophylaxis.
53. Acute appendicitis. Complications. Classification. Clinic. Diagnosis of various complications. Treatment.
54. Blunt abdominal trauma. Rupture of hollow organs. Clinic. Diagnosis. Treatment.
55. Acute arterial obstruction of the vessels of the lower extremities. Clinic. Diagnosis. Differential diagnostics. Treatment.
56. Peptic ulcer of the stomach and 12-peristal colon. Classification. Clinic, diagnostics and differential diagnostics. Operative treatment.
57. Chemical burns of esophagus and stomach. First aid. Methods of conservative and surgical treatment of esophageal stenosis and gastric lesions.
58. Clinic and surgical treatment of acute gastroduodenal bleeding. Application of methods of endoscopic diagnostics and treatment.
59. Diffuse polyposis of the colon. Clinic. Diagnostics. Treatment.

60. Hernias of the white line of the abdomen. Umbilical hernias. Complications. Clinic. Diagnosis. Methods of treatment.
61. Echinococcosis of the liver. Morphological characterization of the parasite. Clinic. Diagnosis. Treatment.
62. Penetrating wound of the chest. Lung injury. Hemopneumothorax. Clinic. Diagnosis. Treatment.
63. Pancreonecrosis. Pathogenesis. Clinic. Diagnostic methods. Treatment. Outcomes of pancreonecrosis - pancreatic fistulas. Further tactics. Surgical treatment.
64. Chronic empyema of pleura. Definition of the concept. Open and closed methods of treatment. Types of thoracoplasty for residual cavities.
65. Penetrating wounds of the chest. Types of pneumothoraxes. Clinic. Diagnosis. Treatment.
66. Esophageal diverticula. Classification. Clinic. Diagnosis. Treatment.
67. Acute intestinal obstruction. Classification. Clinic. Diagnosis. Treatment. Preoperative preparation and management of the postoperative period.
68. Thyrotoxic goiter. Etiology. Pathogenesis. Classification. Clinic. Diagnosis. Treatment. Indications for surgical treatment.
69. Gatekeeper stenosis. Etiology and pathogenesis. Types. Clinic. Diagnosis. Treatment.
70. Features of the course of acute appendicitis in children, elderly patients and pregnant women. Clinic. Diagnosis. Surgical tactics.

#### On the discipline «Obstetrics and Gynecology»

1. Methods of research of hormonal function of ovaries.
2. Anatomy of female genital organs. Topography of pelvic organs.
3. Anatomico-physiological features of the female reproductive system in the embryonic and pediatric periods. 3.
4. Anatomico-physiologic features of the reproductive system of the girl in the prepubertal and pubertal periods.
5. Anatomico-physiological features of the female reproductive system in the menopausal period.
6. Methods of examination of the mother-placenta-fetus system.
7. Artificial abortion: medical indications, conditions, anesthesia, possible complications and their prevention.
8. Spontaneous miscarriage: causes, clinical forms, clinic, emergency care.
9. Modern concepts of neuroendocrine regulation of the menstrual cycle. Hypothalamic-pituitary neurosecretory system and its role in the regulation of menstrual function. Classification of menstrual function disorders.
10. Tests of functional diagnostics to assess the menstrual cycle: types, time of their conduct, informativeness.
11. Legal aspects of obstetric and gynecological service. Features of sanitary and epidemic regime in obstetric institutions.
12. Dispenserization of healthy pregnant women: the optimal period of registration, the scope of examination, the allocation of risk groups.
13. Biomechanism of labor in anterior occipital presentation. The principle of management of the period of fetal expulsion. Prevention of complications.
14. Management of physiological labor, anesthesia, prevention of bleeding.

15. Hygiene and dietetics of the pregnant woman. The role of the antenatal clinic in the prevention of large fetus development.
16. Readiness of the pregnant woman's body for labor. Preparatory and preliminary periods, their duration. Pathologic preliminary period: clinic, diagnosis, obstetric tactics.
17. Changes in the mammary glands during pregnancy. Care care of mammary glands in the postpartum period. Prevention of mastitis.
18. Implantation, fetal organogenesis, placentation. Influence on the embryo and fetus of damaging environmental factors.
19. Asphyxia of the newborn. Compensatory-adaptive reactions of the fetal body as the basis for the preservation of homeostasis, the mechanism of its maintenance. Etiology, pathogenesis, classification, assessment of the severity of asphyxia and modern methods of resuscitation.
20. Anemia of pregnant women: etiology, clinic, diagnosis, treatment, the importance of proteins in the nutrition of pregnant women, metabolic pathways of amino acids. Management of pregnancy and labor. Rehabilitation in the postpartum period.
21. Management of pregnancy and labor in severe forms of gestosis, complications for the mother, fetus and newborn. Indications for early delivery.
22. Regimen, hygiene and nutrition of pregnant women. The importance of proteins in the nutrition of pregnant women. The peculiarity of dietary therapy in the prevention of gestosis.
23. Histophysiology of the mammary gland, neuroendocrine regulation of lactation. Disease of mammary glands in the postpartum period (nipple cracks, pathologic lactostasis, non-purulent mastitis). Clinic, diagnosis, treatment, prevention.
24. Clinic of labor: the causes of labor, the mechanism of regulation of contractile activity of the uterus, periods of labor, their duration and clinical signs. Modern principles of labor management. Anesthesia of labor.
25. Bleeding in the early postpartum period: etiology, clinic, diagnosis. Emergency care in early postpartum hypotonic bleeding. Prevention of bleeding in labor.
26. Gestosis of pregnant women: pathogenesis, classification, clinic, diagnosis, principles of treatment.
27. Premature detachment of the normally located placenta. The role of the placenta in the system "mother-fetus", the features of its development. Etiology, clinic, differential diagnosis, the principle of management of pregnancy and labor, emergency care, prevention.
28. The role of women's counseling in the prevention of complications of pregnancy and childbirth: medical examination of pregnant women from the high-risk group, differentiated management during pregnancy and childbirth.
29. Narrow pelvis: etiology, diagnosis, peculiarities of the course and management of pregnancy and labor, prevention of complications in the mother and fetus.
30. Dynamic observation of pregnant women with kidney disease (pyelonephritis, glomerulonephritis, urolithiasis), contraindications to pregnancy. Rehabilitation in the postpartum period.
31. Dynamic observation of pregnant women with endocrine pathology

(diabetes mellitus): contraindications to pregnancy, terms of preventive hospitalization. Rehabilitation in the postpartum period. Diabetic fetopathy.

32. Kidney disease and pregnancy: classification, risk groups, contraindications to pregnancy. Features of the course of pregnancy and labor. Rehabilitation in the postpartum period.

33. Caesarean section: indications, conditions, varieties of surgery, topographic justification of the operation in the lower segment, the main stages of the operative technique. Possible complications, their prevention.

34. Clinic of labor, periods of labor and duration of their course, modern principles of labor management. Anesthesia of labor.

35. Assessment of the condition of the newborn on the Apgar scale. Primary toilet of the newborn.

36. Postpartum period. Mechanisms of placenta separation. Signs of separation of the afterbirth. Methods of separation of the afterbirth.

37. Modern principles of management of physiological postpartum period: sanitary and epidemic regime of maternity women, features of nutrition, care of the maternity woman. Prevention of septic postpartum diseases.

38. Bleeding in the early postpartum period: etiology, clinic, diagnosis, emergency care, prevention.

39. Prematurity: etiology, clinic, treatment. Features of management of premature labor.

40. Operation of obstetric forceps: indications, conditions, complications and their prevention.

41. Features of the course and management of pregnancy and childbirth in women with heart defects: the main tasks and methods of examination of pregnant women with cardiovascular pathology, contraindications to pregnancy, terms of preventive hospitalization, methods of delivery. Prevention of complications.

42. Postpartum hemorrhage: causes, clinic, diagnosis, emergency care, prevention.

43. Postpartum mastitis. The concept of inflammation, etiology of inflammation, the main local and general signs, stages and forms. Etiology, pathogenesis, classification of mastitis. Features of the course in modern conditions, diagnosis, treatment, prevention of postpartum mastitis.

44. Postpartum period: clinical characteristics, duration, modern principles of management. Emergency care for postpartum hemorrhage at the prehospital stage.

45. Placenta previa: etiology, classification, clinic, diagnosis, obstetric tactics.

46. Rupture of the uterus: causes, mechanism of rupture, clinic of complete rupture of the uterus, emergency care. Clinic threatening rupture. Obstetric tactics.

47. The role of women's counseling in the prevention of preeclampsia in pregnant women: the allocation of risk groups, features of dispensary observation, diagnosis, tactics of management.

48. Diabetes mellitus and pregnancy: features of the course of diabetes, complications of pregnancy. The principle of dynamic observation of pregnant women with diabetes mellitus.

49. Weakness of labor: etiology, types, clinic, diagnosis, treatment and prevention.

50. Pelvic presentation of the fetus: classification, diagnosis. Principles

of management of pregnancy and labor.

51. The course of pregnancy and labor in heart defects. Principles of medical examination, contraindications to the preservation of pregnancy. Emergency treatment of pulmonary edema.

52. Preeclampsia: etiology, pathogenesis, classification, differential diagnosis, principles of treatment, prevention in the women's clinic.

53. Eclampsia: pathogenesis, clinic, differential diagnosis, emergency care, prevention, obstetric tactics.

54. Dispensary examination of pregnant women with cardiovascular diseases (heart defects, hypertension), contraindications to pregnancy, terms of preventive hospitalization. Rehabilitation in the postpartum period.

55. Diagnostic methods of late pregnancy: collection of the pregnant woman's history, objective examination, additional methods of examination.

56. Prematurity: etiology, pathogenesis, impact on the fetus. Obstetric tactics.

57. Human placenta. Features of its development and implantation. Placental insufficiency: etiology, clinic, diagnosis, treatment, prevention in critical periods of pregnancy.

58. Hormonal methods of contraception: classification of drugs, mechanism of action, contraindications, complications.

59. Dysfunctional uterine bleeding in puberty: pathogenesis, clinic, treatment, prophylaxis.

60. Dysfunctional uterine bleeding in premenopausal age: etiology, pathogenesis, clinic, differential diagnosis, emergency care, rehabilitation.

61. Premature sexual development: etiology, clinic, diagnosis, principles of treatment.

62. Delayed sexual development: etiology, clinic, diagnosis, principles of treatment.

63. Climacteric syndrome: pathogenesis, clinic, differential diagnosis, treatment.

64. Diseases of the cervix. Diagnostic methods, management tactics, prevention of cervical cancer.

65. Infertile marriage. Methods of examination of infertile couple. Modern possibilities of ART.

66. Acute inflammatory diseases of uterine appendages: etiology, clinic, diagnosis, treatment.

67. Acute metoendometritis: etiology, clinic, diagnosis, treatment.

68. The role of women's consultation in the system of obstetric and gynecological care, prevention and treatment of gynecological diseases.

69. Modern methods of contraception: types, conditions of their use, mechanism of action, contraindications, complications.

70. Special methods of gynecological examination (colposcopy hysteroscopy, laparoscopy, ultrasound): informativeness, indications, conditions for performance.

71. The degree of purity of the vaginal smear: indications for the study, informativeness, method of material collection, value in the diagnosis of gynecological diseases.

72. Endoscopic methods of research in gynecology: indications, conditions, informativeness.

73. Bubble skid: etiology, diagnosis, treatment, principles of dispensary.
74. Chorionepithelioma: pathogenesis, clinic, differential diagnosis, treatment, the principle of dynamic observation.
75. «Acute abdomen» in gynecology: causes, clinic, differential diagnosis, emergency care, indications for surgical treatment.
76. Genital prolapse: causes, clinic, treatment, prevention.
77. Dysfunctional uterine bleeding in reproductive age: pathogenesis, differential diagnosis, emergency care, hormonal hemostasis.
78. Benign ovarian tumors: classification, diagnosis, clinic, complications, treatment. Principle of dynamic observation.
79. Infertile marriage. Causes of infertility in marriage. Methods of examination. Principles of treatment of female infertility.
80. Infected abortion: etiology, clinic, complications, diagnosis, treatment, emergency care. Emergency care in septic shock.
81. Uterine myoma: classification, clinic, diagnosis. Indications to surgical treatment. Scope of surgical treatment.
82. Uterine myoma: etiology, pathogenesis, classification. Clinic and diagnosis. Principles of treatment, indications for surgical treatment.
83. Uterine myoma: etiology, pathogenesis, classification. Clinic and diagnosis. Principles of treatment, indications for surgical treatment.
84. Amenorrhea and hypomenstrual syndrome: classification, etiology, pathogenesis, methods of examination, differential diagnosis.
85. Pelvic inflammatory disease: etiology, clinic, diagnosis, treatment, prevention, emergency care.
86. Chronic inflammatory diseases of genital organs: etiology, clinic, diagnosis. Principles of treatment.
87. Septic abortion: etiology, clinic, diagnosis, emergency care in bacterial shock.
88. Sexually transmitted infections and reproductive health of a woman: etiology, clinic, diagnostics, treatment, prevention.
89. Ectopic pregnancy terminated by the principle of rupture of the tube: etiology, clinic, diagnosis differential diagnosis, emergency care, rehabilitation.
90. Hyperplastic endometrium: etiology, pathogenesis, clinic, differential diagnosis, medical tactics.
91. Genital endometriosis: classification, clinic, diagnosis, conservative therapy.
92. Cervical cancer: stages of spread, clinic, diagnostic methods, treatment, prevention.
93. Endometrial cancer: etiology, pathogenesis, stages of spread, clinic, diagnosis, principle of treatment.
94. Ovarian cancer: classification, stages of spread, clinic, diagnosis, treatment.

## 2.2 State final attestation in the field of training (specialty) 31.05.01

Medicine is carried out in three stages:

- verification of the level of theoretical preparedness by means of interdisciplinary test examination on a computerized basis;
- verification of the level of mastering practical skills;
- assessment of theoretical knowledge and skills to solve specific professional tasks during an oral interview on tickets.

«State final attestation» corresponds to block 3 of FSES HE, which includes preparation for and passing the state examination. Block 3 «State Final Attestation» in full belongs to the basic part of the program and ends with the awarding of the qualification of doctor-medicine, specified in the list of specialties and areas of training of higher education.

### Stage I – Attestation testing

At this stage the level of theoretical preparedness is checked in the form of an interdisciplinary test exam in electronic form. The test is conducted using test tasks that are set for each graduate automatically with the use of information systems by randomly selecting 80 test tasks. The graduate has 60 minutes to solve 80 test tasks.

Stage II - Verification of the level of practical training takes place in the Simulation and Training Accreditation Center of the Medical Institute of Surgut State University.

Assessment of practical skills in simulated conditions, with the use of simulation equipment is conducted by evaluating the correctness and consistency of the student's performance of at least 5 practical stations:

- basic adult cardiopulmonary resuscitation and maintenance of airway patency;
- emergency medical care;
- physical examination of the patient (cardiovascular system/respiratory system/gastrointestinal tract);
- intravenous injection;

Stage III – The interview is conducted in the form of answers to situational tasks on basic clinical disciplines. The examination cards of the 3rd stage consist of three clinical problems.

## 2.3 Recommendations for students preparing for the state examination

2.3.1 List of questions (points) submitted for the state exam is established by the Graduating Department. If the state exam is interdisciplinary, all academic disciplines are indicated, the main questions (points) are included in its structure.

2.3.2 By the university Rector's order, the State Examination Committee (hereinafter SEC) is approved, the SEC structure is revealed to the students attention.

2.3.3 Every student is admitted to the state exams by the order of the vice-rector of educational and methodical work.

2.3.4 Consultations are being held in accordance with the state examination

programme.

2.3.5 Dates and consultations of examinations are given in the schedule.

2.3.6 Examination cards are issued in accordance with the Supplement, signed by the head of the department and the director of the institute, accepted by the Academic Council Session of MI and approved by the vice-rector of educational and methodical work.

2.3.7 During the preparation period for the oral answers students make the necessary notes of every question (point) on stamped sheets of cards by the SEC. The first student is given no more than 60 minutes to prepare for his answer, the other students answer in the order of priority.

2.3.8 If it is necessary the student can be asked additional questions after answering the theoretical question of the ticket cards.

2.3.9 At the end of the answer members of the SEC (with the permission of its chairperson) may ask additional questions to the student that are not beyond the limits of the state exam programme. Student's answer to the examination card and the questions of the SEC members should not be more than 30 minutes.

2.3.10 At the end of the state examination the SEC discusses every student's answers at a closed meeting and gives an agreed final grade to each of them.

2.3.11 The final grade is given to the student on the day of the exam, put both in the exam protocol and the academic record book. The examination record should contain the number and questions (points) of the examination card. The SEC chairperson and the secretary should sign both the protocol and the academic record book.

2.3.12 The protocols of the state exam are approved by the SEC chairperson, recorded in a special journal, and stored in the educational department in accordance with the cases nomenclature. At the end of the expiry date the protocols are transferred to the archive.

2.3.13 The answer to the question (points) of an examination card must comply with the main provisions of the part of the state examination programme and provide a statement of definitions of basic concepts.

2.3.14 The order and sequence of the material presentation is determined by the student.

2.3.15 The student has the right to expand the scope of the answer to the question (points) on the basis of additional literature with the obligatory reference to the authorship of the stated theory.

2.3.16 Theoretical statements should be supported by the examples from practical activities.

## 2.4. Criteria for assessing the results of passing state examination

General criteria for assessing the level of graduate training on the basis of the state(interdisciplinary) exam include:

2.4.1 The level of the student's acquisition of the theoretical and practical material provided by the curriculum in the disciplines of BPEP HE in the field of training (specialty) 35.05.01 General Medicine.

2.4.2 The student's ability to use acquired theoretical knowledge to analyze professional problems.

2.4.3 Argumentation, clarity, precision, consistency of presentation, professional erudition.

In accordance with the specified criteria the student's answer is assessed as follows:

At stages I and II, the student must score at least 70%, and it corresponds to a satisfactory assessment.

### Correlation scale of points and grades for the 1st and 2nd stages

Grade	Points
«2» unsatisfactory	0-69
«3» satisfactory	70-79
«4» good	80-89
«5» excellent	90-100

### Stage III - Final interview.

At the 3rd stage every student's answer is estimated as 1 point. The maximum number of points that a graduate can get is 15 points. The student must get at least 10 points; this corresponds to a satisfactory grade.

### Scale of grades and points

Grade	Points
«2» unsatisfactory	0-9
«3» satisfactory	10
«4» good	11 - 13
«5» excellent	14 - 15

The grade «Excellent» is given if the case problems are correctly solved; detailed explanations and argumentations of the conclusions are made for every situational problem of the examination card. The graduate demonstrates methodological and theoretical knowledge and is fluent in scientific terminology. When analyzing the proposed situations he shows creative abilities and knowledge of additional literature, demonstrates good analytical skills, and is able to draw analogies among course topics.

The grade «Good» is given if the case problems are correctly solved, explanations and argumentations of the conclusions are given. The graduate demonstrates methodological and theoretical knowledge but makes some inaccuracies when operating scientific terminology.

The grade «Satisfactory» is given if the case problems are correctly solved,

explanations and argumentations of the conclusions are given by the active assistance of the examiners. He has limited theoretical knowledge, makes significant mistakes establishing logical relationships, and makes mistakes using scientific terminology.

The grade «Unsatisfactory» is given if the case problems are incorrectly solved, however, during the discussion with the examiners the graduate could not correct the error. He shows inability to make independent conclusion and has a weak theoretical knowledge; doesn't use scientific terminology.

In accordance with the specified criteria the final grade is given on the bases of total grades of three stages GIA due to the following criteria:

«Excellent» («5») - the student has a deep and full knowledge of the content of the educational material and the conceptual apparatus; can associate theory with practice, illustrates it with examples, facts, and scientific research data; carries out interdisciplinary associations, proposals, conclusions; logically, clearly and precisely presents answers to posed questions; is able to argue his answers to the stated problem. The answer is independent.

«Good» («4») - the student has knowledge of the content of the educational material and the conceptual apparatus but makes some inaccuracies (minor errors) in the presentation of material. The answer is less detailed, deep, valid and complete; however, errors are corrected by the student himself after examiner's additional questions.

«Satisfactory» («3») - the student has knowledge and understanding of the basic content of the educational material, but his answers are incomplete, inconsistent, he makes inaccuracies and significant errors in the definition of concepts, the formulation of provisions. When arguing the answer, the student does not rely on the main provisions of research, conceptual and regulatory documents; does not apply theoretical knowledge to explain empirical facts and phenomena, does not substantiate his arguments; there is a violation of the presentation logic. In general, the answer has a low level.

«Unsatisfactory» («2») - the student has scattered unsystematic knowledge. He makes mistakes in the definition of concepts, formulation of theoretical positions distorting their meaning. The student is not oriented in normative-conceptual, program-methodical, research materials, randomly and uncertainly presents the material; does not know how to apply knowledge to explain empirical facts, does not establish interdisciplinary relationship.

Depending on the results of the exam the open voting committee decides «To award the qualification of the specialist «General Practitioner» or «To refuse to be awarded the qualification of the specialist «General Practitioner».

In the case when one of the SEC members gives the grade that differs sharply from the others, it should be separately considered and discussed, as it can be recognized as more correct; after presenting the arguments by the expert. Exam results are recorded in the protocol.

## 2.5 List of recommended literature

Main sources				
	Authors	Name	Edition	Number
1.	Ivashkin, V. T.	Internal Diseases Propedeutics = Пропедевтика внутренних болезней: textbook: for foreign students of medical higher educational institutions	Moscow: GEOTAR - Media, 2020. - 176 p.	<a href="https://www.studentlibrary.ru/book/ISBN9785970455555.html">https://www.studentlibrary.ru/book/ISBN9785970455555.html</a>
2.	Khaitov, Rakhim / Khaitov Rakhim M.	Immunology: учебник	Moscow: GEOTAR - Media, 2019. - 272 c.	<a href="https://www.studentlibrary.ru/book/ISBN9785970449806.html">https://www.studentlibrary.ru/book/ISBN9785970449806.html</a>
3.	Radzinskiy V.E., Fuks A.M.	Gynecology: учебник	Moscow: GEOTAR-Media, 2020. - 896 c.	<a href="https://www.studentlibrary.ru/book/ISBN9785970457993.html">https://www.studentlibrary.ru/book/ISBN9785970457993.html</a>
Additional sources				
	Authors	Name	Edition	Number
1.	A.V. Reshetnikov	Sociology of Medicine textbook: учебник	Moscow: GEOTAR - Media, 2020. - 368 c.	<a href="https://www.studentlibrary.ru/book/ISBN9785970454473.html">https://www.studentlibrary.ru/book/ISBN9785970454473.html</a>
2.	Kharkevitch, D. A.	Pharmacology: Textbook / Translation of Russian textbook, 12th edition, revised and improved	Moscow: GEOTAR-Media, 2019 - 2nd edition. - 680 pages with illustrations. - 680 c.	<a href="https://www.studentlibrary.ru/book/ISBN9785970449851.html">https://www.studentlibrary.ru/book/ISBN9785970449851.html</a>
3.	Koshechkin V.A.	Phthisiatry: textbook -	Moscow: GEOTAR-Media, 2019-256 c. - ISBN 978-5-9704-	<a href="https://www.studentlibrary.ru/book/ISBN9785970453025.html">https://www.studentlibrary.ru/book/ISBN9785970453025.html</a>

			5302-5.	
4.	Garkavi A.V., Kavalersky G.M.	Disaster medicine	Moscow: GEOTAR - Media, 2019. - 304с.	<a href="https://www.studentlibrary.ru/book/ISBN9785970452585.html">https://www.studentlibrary.ru/book/ISBN9785970452585.html</a>
Guidance cardss				
	Authors	Name	Edition	Number
1.	Gostishchev, V. K.	General surgery. The manual: tutorial	Moscow: GEOTAR - Media, 2020. - 220 с.	<a href="https://www.studentlibrary.ru/book/ISBN9785970454398.html">https://www.studentlibrary.ru/book/ISBN9785970454398.html</a>
2.	Gostishchev V.K.	General surgery: The manual	Moscow: GEOTAR - Media, 2015. - 220 с.	<a href="https://www.studentlibrary.ru/book/ISBN9785970434918.html">https://www.studentlibrary.ru/book/ISBN9785970434918.html</a>
3.	Glukhov A.I., Babchenko E.V.	Biochemist ryof the connective tissue. Biochemist ryof mixed saliva	Moscow: GEOTAR- Media, 2019. - 128 с.	<a href="https://www.studentlibrary.ru/book/ISBN9785970449721.html">https://www.studentlibrary.ru/book/ISBN9785970449721.html</a>
4	V.E. Radzinskiy, A.M. Fuks, Ch.G. Gagaev	Obstetrics	Moscow: GEOTAR - Media, 2019. - 880 с.	<a href="https://www.studentlibrary.ru/book/ISBN9785970446836.html">https://www.studentlibrary.ru/book/ISBN9785970446836.html</a>
5.	Baigildin a A.A., Davydov V.V.	Laboratory Manual on Biological Chemistry: for foreign students of Medical Department of Higher Education Institutions: tutorial	ГЭОТАР - Медиа, 2019. - 304 с.	<a href="https://www.studentlibrary.ru/book/ISBN9785970449714.html">https://www.studentlibrary.ru/book/ISBN9785970449714.html</a>

### 3. Requirements to the final theses and the order of their progress

The state qualification exam - final qualification works is not provided by the FSES.

### 4. Procedure for appeals presentation and expertise

4.1 According to the results of state attestation tests student has the right to submit to the Appeals Commission written appeal statement (hereinafter - appeal) on the violation, in his opinion, the established procedure for conducting the state

attestation test and (or) disagreement with the results of the state examination.

4.2 Appeal to the Appeals Commission is submitted by the student personally not later than the next working day after the announcement of the results of the state attestation test.

4.3 To consider the appeal secretary of the GEC sends to the Appeals Commission minutes of the GEC meeting, the conclusion of the chairman of the GEC on compliance with procedural issues in the conduct of the state attestation test, as well as written responses of the student.

4.4 Appeal is considered no later than 2 working days from the date of appeal at a meeting of the Appeals Commission, which is invited to the chairman of the GEC and the student who filed an appeal.

4.5 The decision of the Appeal Commission is brought to the attention of the student who filed an appeal, within 3 working days from the date of the meeting of the Appeal Commission. The fact of familiarization of the student who filed an appeal, with the decision of the Appeal Commission is certified by the signature of the student.

4.6 Appeals Commission when considering an appeal on violation of the established procedure for conducting the state attestation test takes one of the following decisions:

- on the rejection of the appeal, if the information set forth in it about violations of the procedure for conducting the GIA of the student is not confirmed and / or did not affect the on the result of the GIA;

- on the satisfaction of the appeal, if the information set forth in her information on the admitted violations of the procedure for conducting GIA student confirmed and affected the result of the GIA.

4.7 In the case of satisfaction of the appeal, the previously exhibited result of the GIA is subject to annulment and putting a new result.

4.8 In the case of satisfaction of the appeal to the student is assigned to repeat the state certification test in the presence of one of the members of the appeals committee in the additional one of the members of the Appeals Commission in additional terms established by SURSU, no later than the date of completion of training on the relevant educational plan of the student who filed an appeal.

4.9 The decision of the Appeal Commission is final and is not subject to review.

4.10 Appeal for a repeat of the state attestation test is not accepted.