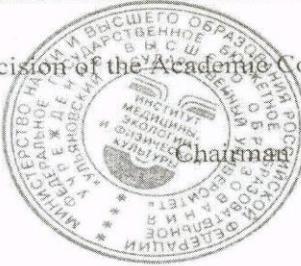


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F- Educational plan of the discipline		

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APPROVED
 by the decision of the Academic Council of the USU Institute of Medicine,
 Ecology and Physical Culture
 May «12» 2021, № 9/229
 Midlenko V.I.
 (signature, signature clarification)
 «12» of May 2021



EDUCATIONAL PLAN

Subject:	Clinical pharmacology
Faculty	Medical
Department	Therapy and occupational diseases
Course	6

Speciality 31.05.01. «General medicine» (with mastering part of the program in English)

(code of the speciality, full name)

Focus (profile / specialization) --

Form of education- full-time education

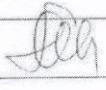
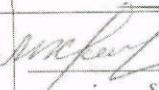
Date of introducing in the instruction process at USU: « 1 » of September 2021

The program was updated at the meeting of the department: № 1 of 31.08.2022.

The program was updated at the meeting of the department: № 1 of 20.

Information about the authors:

Initials	Abbreviation of the department	Position, academic degree, title
Serov V.A.	Therapy and occupational diseases	Professor of department TOD, M. D

Agreed	Agreed
Head of department, developing discipline	Head of the graduating Department
 / Shutov A.M./	 /Vize-Khripunova M. A signature
«11» May 2021	«11» May 2021

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1. GOALS AND OBJECTIVES OF THE DISCIPLINE :

Objectives of the discipline :

Based on modern medical knowledge, to teach students the effective and safe choice of drugs for modern individualized pharmacotherapy using the latest information on pharmacokinetics (FC), pharmacodynamics (PD), pharmacogenetics (FG), interaction, adverse drug reactions (NLR) drugs (LS) and provisions of evidence-based medicine (DM).

Tasks of discipline development :

- to present a complete system of theoretical foundations of clinical pharmacology; factors contributing to changes in metabolism, the action of drugs, increasing the risk of NLR;

- to consider ways of realization of compound questions of clinical pharmacology at patients;

- a) study and evaluation of the physical parameters of drugs;

- b) study and evaluation of PD effects of drugs;

- c) assessment of potential drug-drug interactions;

- d) forecasting and assessment of NLR, the study of the order of their registration;

- e) study of the relationship of FC and FD drugs;

- e) Study of factors contributing to changes in the action and metabolism of drugs, as well as factors that increase or reduce the risk of NLR;

- g) the study of the features of PD, FC drugs depending on the functional state of the biological system of the body (age, pregnancy, etc.).

- h) study of phases of clinical research of new drugs, DM provisions;

- I) taking into account the formulary system, pharmacoepidemiology and results of pharmacoeconomical studies;

to choose the most effective, safe and affordable drug;

- determine the optimal dosing regimen, choose the correct method of administration, taking into account the FC and PD parameters of drugs, as well as age, sex and clinical condition of the patient;

- prescribe an effective and safe combination of drugs in a specific clinical situation;

- predict and identify early side effects of drugs and carry out their correction;

- to determine adequate clinical and paraclinical parameters to control the effectiveness and safety of drugs used;

- familiarize yourself with the methods of assessing the quality of life;

- to determine the most accessible and objective methods of control over the effectiveness and safety of the applied groups of drugs and the frequency of their application;

- to take into account the features of FC, FD drugs with insufficiency of the cardiovascular, respiratory systems, gastrointestinal tract, liver and kidneys.

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2. THE PLACE OF DISCIPLINE IN THE STRUCTURE OF OPOP:

Discipline "Clinical pharmacology" refers to the training cycle Base part B1.O.42.

The basic knowledge, skills and competencies of the student necessary for the study of the discipline are formed:

- in the study of disciplines of the humanitarian, social and economic cycle: philosophy, bioethics, history of medicine, psychology and pedagogy, law Latin language;
- in the study of disciplines of mathematical, natural science cycle: physics and mathematics; medical Informatics; chemistry; biology; biochemistry; human anatomy, topographic anatomy; pathological anatomy, clinical pathological anatomy; histology, embryology, Cytology; normal physiology; pathophysiology; Microbiology, Virology; pharmacology; immunology;
- in the study of disciplines of the professional cycle: hygiene; public health and health care, health Economics; epidemiology; medical rehabilitation; propedeutics of internal diseases; faculty therapy; dermatovenerology; General surgery, surgical diseases; Pediatrics; radiation therapy and radiation diagnostics, infectious diseases, Phthisiopulmonology, polyclinic therapy, occupational diseases, ophthalmology, obstetrics and gynecology, ENT diseases.

3. A LIST OF INTENDED LEARNING OUTCOMES ON DISCIPLINE (MODULE), CORRELATED WITH THE PLANNED LEARNING OUTCOMES OF THE BASIC PROFESSIONAL EDUCATIONAL PROGRAM

Code and name of the implemented competence	List of planned learning outcomes in the discipline (module), correlated with indicators of competence achievement
General professional competences - 3	<p>Know:</p> <ul style="list-style-type: none"> - the state legal policy in the field of combating doping, the problems of legal regulation and the need to regulate the fight against doping in the field of sports; - features of anti-doping international and Russian anti-doping legislation, consolidating the duties of athletes, coaches and other personnel to comply with anti-doping legislation, grounds and periods of temporary suspension, the rights of a person suspected of violating anti-doping legislation, sanctions for violation of anti-doping legislation, the system of bodies operating in the field anti-doping in sports, the system of doping dispute review bodies; <p>Could:</p> <ul style="list-style-type: none"> - apply the norms of anti-doping legislation to solve specific

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General professional competences - 7	<p>situations arising in the process of treating athletes;</p> <ul style="list-style-type: none"> - to apply the provisions of the International Convention on the Suppression of Doping, the World Anti-Doping Code, the Constitution of the Russian Federation, the All-Russian Anti-Doping Rules, International Standards in the field of anti-doping rules; <p>Own:</p> <ul style="list-style-type: none"> - methods of control over the use of medicines, taking into account anti-doping legislation, - the skills of drug treatment of people involved in sports. <p>Know:</p> <ul style="list-style-type: none"> • group affiliation and PD of the main groups of drugs- a type of pharmacological action of drugs through the receptor by indirectly changing the effect of an endogenous antagonist, by inhibiting transport processes, enzymes and other mixed effects; • the concept of stereoisomerism; • characteristics of the main functional parameters of drugs, their dynamics, dosing regimen in various pathologies, as well as in newborns, children and the elderly, during pregnancy and lactation, depending on the nature of the disease and the functional state of the patient's body, the presence of bad habits, phenotype and genotype of metabolic pathways; • basic principles of scientific research and monitoring of drug concentration; study of pharmaceutical interaction of drugs; • features of dosage of drugs taking into account chronobiology and chronopharmacology; • principles of mathematical modeling for the choice of dosage regimen drugs; • methods of evaluation of clinical efficacy and safety of the main groups of drugs; • basic NLR of the most common drugs, their identification, classification and registration, methods of prevention and correction; • fundamentals of the formulary system and standards of diagnosis and treatment of the most common diseases; • the provisions of the DM and its levels; • phases of clinical research of new drugs; • interrelation of FC, PD, clinical efficacy and safety of
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	<p>DS in patients with different stages of lesions of the main functional systems.</p> <p>Could:</p> <ul style="list-style-type: none"> • to observe the rules of medical ethics and deontology; to solve a set of problems related to the relationship between the doctor and the patient; • analyze the results of the study PK / PD of drugs; • choose the necessary set of research methods to assess the PD effects of drugs and interpret the data; choose methods of adequate control over the effectiveness and safety of treatment and predict the risk of side effects of drugs; • conduct adequate selection and prescribe the most effective and safe drugs; • determine the optimal dosing regimen; choose the dosage form of the drug, dose, frequency and duration of administration of drugs depending on the timing of pregnancy, lactation; conducting pharmacological tests to assess individual sensitivity to drugs; • be able to identify NLR in the appointment of the most common drugs, classify, register and offer ways to prevent and correct them; • be able to read, understand and evaluate clinical trial protocols of new drugs; • choose drugs for the formation of the drug formulary; • be able to use educational scientific, normative and reference literature; • be able to solve situational problems, tests and conduct an expert assessment of the correctness of the choice, effectiveness and safety of the use of drugs in a particular patient; • have an idea about the impact of drugs on the parameters of quality of life; • be able to collect pharmacological and allergological history. <p>Own:</p> <ul style="list-style-type: none"> - a select group of drugs; - the choice of a specific drug taking into account the individual PD and FC, the mechanism of action of drugs, known NLR and possible interaction with
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	<ul style="list-style-type: none"> - the concomitant appointment of other drugs; - choice of dosage form, dose and route of administration of drugs, dosing regimens (multiplicity, dependence on food intake and other drugs); - predicting the risk of developing nlrh; - justification of the possibility and necessity of the combined appointment of drugs; • compliance with the rules of medical ethics and deontology; • selection of methods for adequate control of the effectiveness and safety of treatment; • dosing regimen, especially the choice of drugs depending on the timing of pregnancy, lactation; • conducting pharmacological tests to assess individual sensitivity to drugs.
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4. THE TOTAL COMPLEXITY OF THE DISCIPLINE

4.1. The amount of discipline in credits (total) 3 cr. ed.

4.2. The volume of discipline by type of academic work (in hours) 108 hours

Type of training	Number of hours form (teaching)		
	Total according to the plan	including semesters	
		1	2
1	2	3	
Contact work of students with the teacher in accordance with the training program	58/ 58	58/ 58	
Classroom instruction	58/ 58	58/ 58	
lectures	12/ 12	12/ 12	
Seminars and workshops	46/ 46	46/ 46	
laboratory work, workshops	-	-	
Independent work	50	50	
Form of current control of knowledge and control's	-	-	

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independent work: testing, counter. work, Colloquium, abstract, etc. (at least 2 types)		
Coursework	-	-
Types of intermediate certification (exam, test)	Test	Test
Total hours on discipline	108/ 58	108/ 72

* If it is necessary to use partially / exclusively distance educational technologies in the educational process in the table, through a slash, the number of hours of work of teaching staff with students for conducting classes in a distance format using distance learning is indicated.

4.3. The content of the discipline (module.) Allocation of hours by subject and type of study:

Form of training _ _ full-time _____

Name of sections and topics	total	Types of training sessions						Form of current control of knowledge	
		Classroom classes			Online Classes	Independent work			
		lectures	Seminars and workshops	Laboratory work, workshops					
1	2	3	4	5	6	7	8		
Section 1. General questions of clinical pharmacology									
1. Title of the topic: General issues of clinical pharmacology. The value of FC and FD for rational choice of drugs. The main pharmacokinetic processes and parameters, their clinical significance. Therapeutic drug monitoring.	8/ 2	2/ 2	-	-	-	6	individual survey, written testing, interview on situational tasks		
2. Topic name: Drug interactions. Possibilities of rational combination of drugs. Undesirable effects of drugs.	8/ 2	2/ 2	-	-	-	6	Written testing		
3. Topic name: Formulary system. Farma-oeconomica. Evidence-based medicine.	8/ 2	2/ 2	-	-	-	6	Written testing		
Section 2. Private issues of clinical pharmacology									
4. Topic name: Clinical pharmacology of antimicrobial agents. Clinical and pharmacological principles of the choice of antibacterial drugs	8/ 8	2/ 2	6/ 6	-	-	-	individual survey, written testing, interview on situational tasks		

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5. Title of the topic: Clinical pharmacology of drugs affecting bronchial conductivity.	8/ 8	2/ 2	6/ 6	-	-	-	individual survey, written testing, interview on situational tasks
6. Title of the topic: Clinical pharmacology of agents affecting vascular tone.	8/ 8	2/ 2	6/ 6	-	-	-	individual survey, written testing, interview on situational tasks
7. Title of the topic: Clinical pharmacology of drugs affecting the main functions of the myocardium.	8/ 8	2/ 2	6/ 6	-	-	-	individual survey, written testing, interview on situational tasks
8. Title of the topic: Clinical pharmacology of agents affecting hemostasis and hematopoiesis. The preparations of iron.	6/ 6	-	6/ 6	-	-	-	individual survey, written testing, interview on situational tasks
9. Title of the topic: Clinical pharmacology of drugs used in endocrinology.	12/ 4	-	4/ 4	-	-	8	individual survey, written testing, interview on situational tasks
10. Title of the topic: Clinical pharmacology of drugs used in diseases of the digestive system.	12/ 4	-	4/ 4	-	-	8	individual survey, written testing, interview on situational tasks
11. Title of the topic: Clinical pharmacology of steroid and non-steroidal anti-inflammatory drugs.	12/ 4	-	4/ 4	-	-	8	individual survey, written testing, interview on situational tasks
12. Title of the topic: Clinical pharmacology of psychotropic drugs and vitamins. Test.	12/ 4	-	4/ 4	-	-	8	individual survey, written testing, interview on situational tasks
Total	108/ 758	12/ 12	46/ 46	-	-	50	Test.

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* If it is necessary to use partially / exclusively distance educational technologies in the educational process in the table, through a slash, the number of hours of work of teaching staff with students for conducting classes in a distance format using distance learning is indicated.

5. THE CONTENT OF THE COURSES (MODULE)

Section 1. General questions of clinical pharmacology

Theme 1. General questions of clinical pharmacology. The value of pharmacokinetics (FC) and pharmacodynamics (PD) for rational choice of drugs. Main pharmacokinetic processes and parameters, their clinical significance. Therapeutic drug monitoring.

The content of the topic:

Subject, objectives and basic concepts of clinical pharmacology (CF). Modern methods of evaluating the effectiveness and safety of drugs. Principles of evidence-based medicine. The concept of a Formulary system of drug use. The algorithm of rational prescription of medicines. FC value to select the drug and determine the dosing mode. Features of FC in different age periods. Features of FC drugs in the pathology of the respiratory system, gastrointestinal tract, blood circulation, liver and kidneys. Methodology and phases of clinical research of new drugs. Modern methods of clinical trials of drugs, the concept of controlled clinical trials. FD LS. Definitions of PD, receptors, messengers, mechanism of action, selectivity, stereoisomers, total and partial agonists and antagonists. Modern methods of assessing the action of drugs, requirements for them. The importance of pharmacological samples in the choice of drugs and the determination of the rational mode of dosing. The value of monitoring the effect of drugs. Relationship between FC and FD. Features of FD in different periods. International Convention Against Doping and World Anti-Doping Code.

Theme 2. Drug interaction. Possibilities of rational combination of drugs. Undesirable effects of drugs.

The content of the topic:

Drug interactions. The nature of the interaction of drugs (pharmacokinetic, pharmacodynamic, physiological). Clinical characteristics of manifestations of drug interaction. Principles of rational combination of drugs. Side effects, methods of their detection, prevention and correction. Clinical types of side effects in the patient (pharmacodynamic, toxic, allergic, mutagenic, paramedic). Mechanisms of occurrence and methods of forecasting the possible development of side effects. Dependence of side effects of drugs on the route of administration, dose, duration of the course of their application. Dependence of manifestations of side effects of drugs on age. Features of side effects of drugs on the fetus and newborn. Principles of correction of side effects.

Theme 3. The formulary system. Pharmacoeconomics. Demonstrative medicine.

The content of the topic:

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The law on medicines. The place of the Pharmacological Committee and the Ministry of health of the Russian Federation in the treatment of drugs. Types of drug names. Pharmacoepidemiology, pharmacoeconomics, their content and purpose. The concept of a formulary system. The concept of evidence-based medicine, its main provisions.

Section 2. Private issues of clinical pharmacology

Theme 4. Clinical pharmacology of antimicrobial agents.

The content of the topic:

Principles of rational choice and determination of antimicrobial dosing regimen depending on the type of pathogen, its sensitivity, localization of inflammation, mechanism and spectrum of action of antimicrobial preparation, peculiarities of microbial resistance formation, peculiarities of antimicrobial preparations use in gastrointestinal tract pathology, organs of metabolism and excretion. Methods for evaluating the effectiveness and safety of antimicrobials. Diagnosis, correction and prevention of adverse reactions. Principles of selection of antibacterial drugs for children depending on age, toxicity, tolerability.

Theme 5. Clinical pharmacology of agents affecting bronchial conductivity.

The content of the topic:

Xanthine derivatives, M-choline blockers, adrenostimulants. Expectorant. Mast cell stabilizers, leukotriene receptor inhibitors, antihistamines. Principles of drug selection, determination of routes of administration and rational dosing regimen taking into account the reversibility of airway obstruction, the degree and level of bronchospasm, the amount and viscosity of sputum, the presence of intolerance, allergic component, these factors, as well as factors that change the sensitivity to the drug. Methods of efficiency and safety assessment. Diagnosis, correction and prevention of adverse reactions. The concept of compliance. Features of the treatment of broncho-obstructive syndrome in athletes.

Theme 6. Clinical pharmacology of agents affecting vascular tone.

The content of the topic:

Vasoconstrictors. Agonists of the Central α -adrenergic receptors. Ganglioplegics. Angiotensin converting enzyme inhibitors. Angiotensin II receptor antagonists. Blockers of "slow" calcium tubules. α -adrenoblockers. The choice of the drug, the dosage regimen (taking into account its pharmacodynamic, pharmacokinetic features, the severity of the disease, the presence of comorbidities, the state of excretion and metabolism, the effect of the drug on myocardial contractility, OPPS, peripheral vascular condition). Withdrawal. Features of the treatment of cardiovascular pathology in athletes.

Theme 7. Clinical pharmacology of drugs affecting the main functions of the myocardium.

The content of the topic:

Cardiac glycoside. Selection of cardiac glycoside, its dosing regimen and route of administration. Clinical pharmacology of antiarrhythmic drugs. Choice of antiarrhythmic agent, its dosing regimen and method of administration.

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**Theme 8. Clinical pharmacology of agents affecting hemostasis and hematopoiesis.
Iron preparation.**

The content of the topic:

Anticoagulants. Fibrinolytic agents. Agents that increase blood clotting; fibrinolysis inhibitors, drugs that reduce platelet and erythrocyte aggregation. Preparations of iron and folic acid. Principles of selection and determination of dosing regimen. Diagnosis, correction and prevention of NLR. The use of drugs affecting hematopoiesis in athletes.

Theme 9. Clinical pharmacology of drugs used in endocrinology.

The content of the topic:

Clinical pharmacology of hypoglycemic drugs affecting thyroid function. Clinical and pharmacological approaches to the selection of groups and specific drugs for pharmacotherapy of diabetes mellitus, Hypo-and hyperfunction of the thyroid gland. Oral hypoglycemic agents. Insulins. Therapy of emergency conditions in endocrinology. Features of the use of hormonal drugs in athletes.

The theme 10. Clinical pharmacology of drugs used in diseases of the digestive system.

The content of the topic:

Drugs that reduce the secretion of digestive. Anorexigenic drugs. Antacids. Antiemetic drugs. Indications for use. Choleretic and cholekinetic. Hepatoprotectors. Means that change the motility of the gastrointestinal tract. Antispasmodics, laxatives. Antibacterial, enzyme preparations, sorbents. Principles of drug selection, determination of routes of administration and rational dosing regimen. Methods of efficiency and safety assessment. Diagnosis, correction and prevention of adverse reactions. Standards of pharmacotherapy in gastroenterology.

Theme 11. Clinical pharmacology of steroid and nonsteroidal anti-inflammatory drugs.

The content of the topic:

Glucocorticoids are systemic and inhaled, nonsteroidal anti-inflammatory drugs. Selective inhibitors of cyclooxygenase-2 (meloxicam, nimesulide). Principles of selection and determination of the dosing regimen of anti-inflammatory drugs (mechanism of action, metabolism and excretion from the body, features of the inflammatory process: localization, intensity, generalization of the process, the state of the gastrointestinal tract, circulatory system). Methods of efficiency and safety assessment. Diagnosis, correction and prevention of adverse reactions. The use of steroid and non-steroidal anti-inflammatory drugs in athletes.

Theme 12. Clinical pharmacology of psychotropic drugs and vitamins.

The content of the topic:

Indications and principles of choice, determination of dosage regimen of psychotropic drugs depending on the mechanism of action, metabolism and excretion from the body, features of mental status, age characteristics; interaction with other drugs. Methods of efficiency and safety assessment. Diagnosis,

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correction and prevention of NLR. Principles of rational choice and determination of vitamin dosing regimen. Indications for use. Methods of efficiency assessment.

6. TOPICS OF PRACTICAL AND SEMINAR CLASSES

Section 2. Private issues of clinical pharmacology

Theme 4. Clinical pharmacology of antimicrobial agents. Clinical and pharmacological principles of selection of antibacterial drugs.

The purpose of the seminar: Based on modern medical knowledge, to teach students the effective and safe choice of antimicrobial drugs for modern individualized pharmacotherapy using the provisions of evidence-based medicine (DM).

The contents of the seminar:

The study of the principles of rational choice and determination of antimicrobial dosing regimen depending on the type of pathogen, its sensitivity, localization of inflammation, mechanism and spectrum of antimicrobial drug, the formation of microbial resistance, the age of the child, the characteristics of the use of antimicrobial drugs in the pathology of the gastrointestinal tract, organs of metabolism and excretion, methods for assessing the effectiveness and safety of antimicrobial drugs.

Results of the seminar.

Acquisition by students of skills of use of antimicrobial medicines.

Theme 5. Clinical pharmacology of agents affecting bronchial conductivity.

The contents of the seminar:

The study of the features of the use of drugs for the relief of bronchospastic syndrome, expectorants and antihistamines, mast cell stabilizers, leukotriene receptor inhibitors. Mastering the principles of drug selection, determining the ways of administration and rational dosing regimen taking into account the reversibility of airway obstruction, the degree and level of bronchospasm, the amount and viscosity of sputum, the presence of intolerance, allergic component, these factors, as well as factors that change the sensitivity to the drug. Methods for assessing the effectiveness and safety, diagnosis, correction and prevention of adverse reactions.

Results of the seminar.

Students acquire skills of drug therapy in the treatment of diseases of the broncho-pulmonary system.

Theme 6. Clinical pharmacology of agents affecting vascular tone.

The contents of the seminar:

The study of the features of the use of drugs that affect vascular tone: agonists of Central β - adrenoreceptors, inhibitors of angiotensin converting enzyme, antagonists of angiotensin II receptors, blockers of "slow" calcium tubules, β - adrenoblockers.

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Results of the seminar.

Acquisition by students of skills of medical therapy of a syndrome of arterial hypertension, a collapse, ischemic heart disease.

Theme 7. Clinical pharmacology of drugs affecting the main functions of the myocardium.

The contents of the seminar:

The study of the features of the use of drugs that affect the main functions of the myocardium: cardiac glycosides, antiarrhythmic drugs. Principles of choice of antiarrhythmic agent, its dosing regimen and method of administration.

Results of the seminar.

Acquisition by students of skills of medical therapy of acute and chronic heart failure, arrhythmias.

Theme 8. Clinical pharmacology of agents affecting hemostasis and hematopoiesis. Iron preparation.

The contents of the seminar:

The study of the features of the use of drugs that affect hemostasis and hematopoiesis: anticoagulants, fibrinolytic agents, drugs that reduce platelet and erythrocyte aggregation, agents that increase blood clotting. Features of the use of drugs used to treat anemia: iron preparations, vitamin B12 and folic acid.

Results of the seminar.

Acquisition of skills of medical therapy of thrombophilia, hemorrhagic syndrome, anemia by students.

Theme 9. Clinical pharmacology of drugs used in endocrinology.

The contents of the seminar:

The study of the features of the use of drugs used for treatment of disorders of carbohydrate metabolism and affecting the function of the thyroid gland: insulins, biguanides, sulfonylureas, meglitinides, thiazolidinediones, incretins, drugs that reduce the absorption of carbohydrates in the gastrointestinal tract, thyroid hormones, thyrostatics.

Results of the seminar.

Acquisition of skills of medical therapy of Hypo - and hyperglycemia, Hypo - and hyperthyroidism by students.

The theme 10. Clinical pharmacology of drugs used in diseases of the digestive system.

The contents of the seminar:

The study of the features of the use of drugs used for the treatment of diseases of the digestive tract: antacids, M-holinoblokatorov, proton pump blockers, antispasmodics, antiemetics, choleretics and cholekinetics, prokinetics, hepatoprotectors, laxatives, enzyme preparations. Principles of drug selection, determination of routes of administration and rational dosing regimen. Methods of efficiency and safety assessment. Diagnosis, correction and prevention of adverse reactions. Standards of pharmacotherapy in gastroenterology.

Results of the seminar.

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Acquisition of skills of medical therapy of gastroenterological diseases by students.
 Theme 11. Clinical pharmacology of steroid and nonsteroidal anti-inflammatory drugs. Features of application in Pediatrics.

The contents of the seminar:

Study of the use of systemic and inhaled glucocorticoids, nonsteroidal anti-inflammatory drugs. Principles of selection and determination of the dosing regimen of anti-inflammatory drugs (mechanism of action, metabolism and excretion from the body, features of the inflammatory process: localization, intensity, generalization of the process, the state of the gastrointestinal tract, circulatory system). Methods of efficiency and safety assessment. Diagnosis, correction and prevention of adverse reactions.

Results of the seminar.

Students acquire skills in the use of glucocorticoids and non-steroidal anti-inflammatory drugs.

Theme 12. Clinical pharmacology of psychotropic drugs and vitamins.

The contents of the seminar:

The study of the features of the use of psychotropic drugs depending on the mechanism of action, metabolism and excretion from the body, the characteristics of mental status, age characteristics; interaction with other drugs. Methods of efficiency and safety assessment. Diagnosis, correction and prevention of NLR. Principles of rational choice and determination of vitamin dosing regimen. Indications for use. Methods of efficiency assessment.

Results of the seminar.

Acquisition by students of skills of use of psychotropic means and vitamins.

7. LABORATORY WORK, WORKSHOPS

Not provided by the curriculum and work plans.

8. SUBJECTS OF COURSE, CONTROL WORKS, ABSTRACTS

The curriculum does not provide.

9. LIST OF QUESTIONS TO OFFSET

1. Basic concepts of pharmacokinetics. The importance of pharmacokinetics and pharmacodynamics of drugs in determining treatment tactics.
2. Antibiotics: definition, classification, principles of rational use of antibacterial

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drugs, criteria for monitoring the effectiveness and safety of use.

3. Agiotensin converting enzyme inhibitors: pharmacokinetics, pharmacodynamics, classification, indications for use, side effects, criteria for monitoring the effectiveness and safety of use.
4. Direct anticoagulants: pharmacokinetics, pharmacodynamics, classification, indications for use, side effects, criteria for monitoring the effectiveness and safety of use.
5. Proton pump blockers: pharmacokinetics, pharmacodynamics, classification, indications for use, side effects, criteria for monitoring the effectiveness and safety of use.
6. The main groups of bronchodilators. Modern approaches to the tactics of drug therapy of bronchial asthma.
7. The main groups of hypoglycemic drugs. Modern approaches to the tactics of drug therapy of diabetes.
8. Antiarrhythmic drugs: pharmacokinetics, pharmacodynamics, classification, indications for use, side effects, criteria for monitoring the effectiveness and safety of use.
9. Nonsteroidal anti-inflammatory drugs: pharmacokinetics, pharmacodynamics, classification, indications for use, side effects, criteria for monitoring the effectiveness and safety of use.

10. INDEPENDENT WORK OF STUDENTS

Form of training _ _ full-time _____

Name of sections and topics	Type of independent work (study of educational material, problem solving, essay, report, control work, preparation for the test, exam, etc.)	Volume in hours	Form of control (verification of problem solving, abstract, etc.)
1. The name of the theme: General questions of clinical	study of educational material	6	testing

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pharmacology. The value of FC and FD for rational choice of drugs. Main pharmacokinetic processes and parameters, their clinical significance.			
2. Topic name: Drug interactions. Possibilities of rational combination of drugs. Undesirable effects of drugs.	study of educational material	6	testing
3. Topic name: Formulary system. Pharmacoeconomics. Demonstrative medicine.	study of educational material	6	testing
4. Title of the topic: Clinical pharmacology of drugs used in endocrinology.	study of educational material	8	testing
5. Title of the topic: Clinical pharmacology of drugs used in diseases of the digestive system.	study of educational material	8	testing
6. The name of the theme: Clinical pharmacology of	study of educational material	8	testing

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steroid and non-steroidal anti-inflammatory drugs.	material		
7. Title of the topic: Clinical pharmacology of psychotropic drugs and vitamins.	study of educational material	8	Testing

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**«Лечебное дело» (с освоением части программы на английском языке)
Список рекомендуемой литературы**

основная

1. Кукас В.Г., Клиническая фармакология: учебник / под ред. В.Г. Кукаса, Д.А. Сычева. – 5-е изд., испр. и доп. – М. : ГЭОТАР-Медиа, 2017. – 1024 с. – ISBN 978-5-9704-4196-1 – Текст : электронный // ЭБС «Консультант студента» : [сайт]. – URL : <https://www.studentlibrary.ru/book/ISBN9785970441961.html>
2. Вебер В.Р., Клиническая фармакология : учебное пособие / В.Р. Вебер – М. : Медицина, 2011. – 448 с. (Учебная литература для студентов медицинских вузов) – ISBN 978-5-225-10006-3 – Текст : электронный // ЭБС «Консультант студента» : [сайт]. – URL: <https://www.studentlibrary.ru/book/ISBN9785225100063.html>

дополнительная

1. Сычев Д.А. Клиническая фармакология. Общие вопросы клинической фармакологии: практикум : учебное пособие / Под ред. В.Г. Кукаса – М. : ГЭОТАР-Медиа, 2013. - 224 с. – ISBN 978-5-9704-2619-7 – Текст : электронный // ЭБС «Консультант студента» : [сайт]. – URL: <https://www.studentlibrary.ru/book/ISBN9785970426197.html>
2. Оковитый С.В., Клиническая фармакология. Избранные лекции : учебное пособие / Оковитый С.В., Гайворонский В.В., Куликов А.Н., Шуленин С.Н. – М. : ГЭОТАР-Медиа, 2009. – 608 с. - ISBN 978-5-9704-1136-0 – Текст : электронный // ЭБС «Консультант студента» : [сайт]. – URL: <https://www.studentlibrary.ru/book/ISBN9785970411360.html>
3. Петров В.И., Клиническая фармакология и фармакотерапия в реальной врачебной практике: мастер-класс : учебник / Петров В.И. – М. : ГЭОТАР-Медиа, 2015. – 880 с. - ISBN 978-5-9704-3505-2 – Текст : электронный // ЭБС «Консультант студента» : [сайт]. – URL: <https://www.studentlibrary.ru/book/ISBN9785970435052.html>

учебно-методическая

1. Серов В. А. Методические указания для организации самостоятельной работы студентов по дисциплине «Клиническая фармакология» для специальности 31.05.01 «Лечебное дело» (с освоением части программы на английском языке) / В. А. Серов. - Ульяновск : УлГУ, 2021. - 13 с. - Неопубликованный ресурс. - URL: <http://lib.ulsu.ru/MegaPro/Download/MObject/11138> . - Режим доступа: ЭБС УлГУ. - Текст : электронный.

Согласовано:

Л.Н. Бис-Бессетина Юрий Геннадьевич ФИО
 Должность сотрудника научной библиотеки
 подпись дата

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b) software

СПС Консультант Плюс
 НЭБ РФ
 ЭБС IPRBooks
 АИБС "МегаПро"
 ОС Microsoft Windows
 «МойОфис Стандартный»

c) Professional databases, information and reference systems

1. Электронно-библиотечные системы:

1.1. IPRbooks : электронно-библиотечная система : сайт / группа компаний Ай Пи Ар Медиа. – Саратов, [2021]. – URL: <http://www.iprbookshop.ru>. – Режим доступа: для зарегистрир. пользователей. - Текст : электронный.

1.2. ЮРАЙТ : электронно-библиотечная система : сайт / ООО Электронное издательство ЮРАЙТ. – Москва, [2021]. – URL: <https://urait.ru>. – Режим доступа: для зарегистрир. пользователей. - Текст : электронный.

1.3. Консультант студента : электронно-библиотечная система : сайт / ООО Политехресурс. – Москва, [2021]. – URL: <https://www.studentlibrary.ru/cgi-bin/mb4x>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.4. Консультант врача : электронно-библиотечная система : сайт / ООО Высшая школа организаций и управления здравоохранением-Комплексный медицинский консалтинг. – Москва, [2021]. – URL: <https://www.rosmedlib.ru>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.5. Большая медицинская библиотека : электронно-библиотечная система : сайт / ООО Букап. – Томск, [2021]. – URL: <https://www.books-up.ru/ru/library/> . – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.6. Лань : электронно-библиотечная система : сайт / ООО ЭБС Лань. – Санкт-Петербург, [2021]. – URL: <https://e.lanbook.com>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.7. Znanium.com : электронно-библиотечная система : сайт / ООО Знаниум. - Москва, [2021]. - URL: <http://znanium.com> . – Режим доступа : для зарегистрир. пользователей. - Текст : электронный.

1.8. Clinical Collection : коллекция для медицинских университетов, клиник, медицинских библиотек // EBSCOhost : [портал]. – URL: <http://web.b.ebscohost.com/ehost/search/advanced?vid=1&sid=9f57a3e1-1191-414b-8763-e97828f9f7e1%40sessionmgr102> . – Режим доступа : для авториз. пользователей. – Текст : электронный.

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1.9. Русский язык как иностранный : электронно-образовательный ресурс для иностранных студентов : сайт / ООО Компания «Ай Пи Ар Медиа», – Саратов, [2021]. – URL: <https://ros-edu.ru>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

2. КонсультантПлюс [Электронный ресурс]: справочная правовая система. /ООО «Консультант Плюс» - Электрон. дан. - Москва : КонсультантПлюс, [2021].

3. Базы данных периодических изданий:

3.1. База данных периодических изданий : электронные журналы / ООО ИВИС. - Москва, [2021]. – URL: <https://dlib.eastview.com/browse/udb/12>. – Режим доступа : для авториз. пользователей. – Текст : электронный.

3.2. eLIBRARY.RU: научная электронная библиотека : сайт / ООО Научная Электронная Библиотека. – Москва, [2021]. – URL: <http://elibrary.ru>. – Режим доступа : для авториз. пользователей. – Текст : электронный

3.3. «Grebennikov» : электронная библиотека / ИД Гребенников. – Москва, [2021]. – URL: <https://id2.action-media.ru/Personal/Products>. – Режим доступа : для авториз. пользователей. – Текст : электронный.

4. Национальная электронная библиотека : электронная библиотека : федеральная государственная информационная система : сайт / Министерство культуры РФ ; РГБ. – Москва, [2021]. – URL: <https://нэб.рф>. – Режим доступа : для пользователей научной библиотеки. – Текст : электронный.

5. SMART Imagebase // EBSCOhost : [портал]. – URL: <https://ebsco.smartimagebase.com/?TOKEN=EBSCO-1a2ff8c55aa76d8229047223a7d6dc9c&custid=s6895741>. – Режим доступа : для авториз. пользователей. – Изображение : электронные.

6. Федеральные информационно-образовательные порталы:

6.1. Единое окно доступа к образовательным ресурсам : федеральный портал / учредитель ФГАОУ ДПО ЦРГОП и ИТ. – URL: <http://window.edu.ru/>. – Текст : электронный.

6.2. Российское образование : федеральный портал / учредитель ФГАОУ ДПО ЦРГОП и ИТ. – URL: <http://www.edu.ru>. – Текст : электронный.

7. Образовательные ресурсы УлГУ:

7.1. Электронная библиотека УлГУ : модуль АБИС Мега-ПРО / ООО «Дата Экспресс». – URL: <http://lib.ulsu.ru/MegaPro/Web>. – Режим доступа : для пользователей научной библиотеки. – Текст : электронный.

Agreed:

рук. каб. УИТ / Бисюрова НВ / _____ / _____
 Position of UITiT employee Full name Signature Date

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11. EDUCATIONAL AND METHODICAL AND INFORMATION SUPPORT OF DISCIPLINE

- basic literature
- additional literature
- educational and methodical materials (methodical developments, manuals, etc.)
- normative documents (standard program, curriculum)
- tables by sections (40)
- slides, filmstrips, movies (150)
- training stands
- apparatus for measuring blood pressure, ECG apparatus.
- device for daily monitoring of blood pressure,

12. SPECIAL CONDITIONS FOR STUDENTS WITH DISABILITIES

Training students with disabilities is carried out taking into account the peculiarities of psychophysical development, individual capabilities and health of such students. Education of students with disabilities can be organized in conjunction with other students, and separately. If necessary, students from among persons with disabilities (at the request of the student) may be offered one of the following options for the perception of information, taking into account their individual psychophysical characteristics:

- for persons with visual impairment: in printed form in large print; in the form of an electronic document; in the form of an audio file (translation of educational materials into audio format); in printed form in Braille; individual consultations with the involvement of a tiflosurroperevodchika; individual tasks and consultations.
- for persons with hearing impairment: in printed form; in the form of an electronic document; video materials with subtitles; individual consultations with the assistance of a sign language interpreter; individual tasks and consultations.
- for persons with musculoskeletal disorders: in printed form; in the form of an electronic document; in the form of an audio file; individual tasks and consultations."

Developer




signature

position

full name

Ministry of science and high education RF Ulyanovsk State University Faculty of Medicine named after Biktimiriv T.Z., iMEiPC	Form	
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LIST OF CHANGES of
Educational plan of discipline "Clinical pharmacology"
Speciality 31.05.01. «General medicine»

№	Content of the change or a link to the attached text of the	Full name of the head of the Department developing the discipline	Signature	Date
1	Introduction of changes to item C) Professional databases, information and reference systems item 11 "Educational, methodological and information support of the discipline" with the design of Appendix 1	Shutov A.M.		31.08.2022
2	Introduction of changes to item A) Recommended Literature item 11 "Educational, methodological and information support of the discipline" with the design of Appendix 2	Shutov A.M.		31.08.2022

Ministry of science and high education RF Ulyanovsk State University Faculty of Medicine named after Biktimiriv T.Z., iMEiPC F- Educational plan of the discipline	Form	
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Appendix 1

1. Электронно-библиотечные системы:

1.1. Цифровой образовательный ресурс IPRsmart : электронно-библиотечная система : сайт / ООО Компания «Ай Пи Ар Медиа». - Саратов, [2022]. - URL: <http://www.iprbookshop.ru>. – Режим доступа: для зарегистрир. пользователей. - Текст : электронный.

1.2. Образовательная платформа ЮРАЙТ : образовательный ресурс, электронная библиотека : сайт / ООО Электронное издательство ЮРАЙТ. – Москва, [2022]. - URL: <https://urait.ru>. – Режим доступа: для зарегистрир. пользователей. - Текст : электронный.

1.3. Консультант врача. Электронная медицинская библиотека : база данных : сайт / ООО Высшая школа организаций и управления здравоохранением-Комплексный медицинский консалтинг. – Москва, [2022]. – URL: <https://www.rosmedlib.ru>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.4. Большая медицинская библиотека : электронно-библиотечная система : сайт / ООО Букап. – Томск, [2022]. – URL: <https://www.books-up.ru/rus/library/>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.5. ЭБС Лань : электронно-библиотечная система : сайт / ООО ЭБС Лань. – Санкт-Петербург, [2022]. – URL: <https://e.lanbook.com>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.6. ЭБС Znanium.com : электронно-библиотечная система : сайт / ООО Знаниум. - Москва, [2022]. - URL: <http://znanium.com> . – Режим доступа : для зарегистрир. пользователей. - Текст : электронный.

1.7. Clinical Collection : научно-информационная база данных EBSCO // EBSCOhost : [портал]. – URL: <http://web.b.ebscohost.com/ehost/search/advanced?vid=1&sid=9f57a3e1-1191-414b-8763-e97828f9f7e1%40sessionmgr102> . – Режим доступа : для авториз. пользователей. – Текст : электронный.

1.8. База данных «Русский как иностранный» : электронно-образовательный ресурс для иностранных студентов : сайт / ООО Компания «Ай Пи Ар Медиа». – Саратов, [2022]. – URL: <https://ros-edu.ru>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

2. КонсультантПлюс [Электронный ресурс]: справочная правовая система. /ООО «Консультант Плюс» - Электрон. дан. - Москва : КонсультантПлюс, [2022].

3. Базы данных периодических изданий:

3.1. База данных периодических изданий EastView : электронные журналы / ООО ИВИС. - Москва, [2022]. – URL: <https://dlib.eastview.com/browse/udb/12>. – Режим доступа : для авториз. пользователей. – Текст : электронный.

3.2. eLIBRARY.RU: научная электронная библиотека : сайт / ООО Научная Электронная Библиотека. – Москва, [2022]. – URL: <http://elibrary.ru>. – Режим доступа : для авториз. пользователей. – Текст : электронный

3.3. Электронная библиотека «Издательского дома «Гребенников» (Grebinnikov) : электронная библиотека / ООО ИД Гребенников. – Москва, [2022]. – URL: <https://id2.action-media.ru/Personal/Products>. – Режим доступа : для авториз. пользователей. – Текст : электронный.

4. Федеральная государственная информационная система «Национальная электронная библиотека» : электронная библиотека : сайт / ФГБУ РГБ. – Москва, [2022]. – URL: <https://нэб.рф>. – Режим доступа : для пользователей научной библиотеки. – Текст : электронный.

5. SMART Imagebase : научно-информационная база данных EBSCO // EBSCOhost : [портал]. – URL: <https://ebsco.smartimagebase.com/?TOKEN=EBSCO->

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1a2ff8c55aa76d8229047223a7d6dc9c&custid=s6895741. – Режим доступа : для авториз. пользователей. – Изображение : электронные.

6. Федеральные информационно-образовательные порталы:

6.1. Единое окно доступа к образовательным ресурсам : федеральный портал . – URL: <http://window.edu.ru/>. – Текст : электронный.

6.2. Российское образование : федеральный портал / учредитель ФГАУ «ФИЦТО». – URL: <http://www.edu.ru>. – Текст : электронный.

7. Образовательные ресурсы УлГУ:

7.1. Электронная библиотечная система УлГУ : модуль «Электронная библиотека» АБИС Мега-ПРО / ООО «Дата Экспресс». – URL: <http://lib.ulsu.ru/MegaPro/Web>. – Режим доступа : для пользователей научной библиотеки. – Текст : электронный.

Согласовано:

Захарова Н.Н.
Должность сотрудника УИТиГ

Кирюхина И.
ФИО


подпись

19.04.22
дата

Ministry of science and high education RF Ulyanovsk State University Faculty of Medicine named after Biktimiriv T.Z., iMEiPC F- Educational plan of the discipline	Form	
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Appendix 2

11. EDUCATIONAL-METHODICAL AND INFORMATION SUPPORT OF DISCIPLINE

a) List of recommended literature

Main literature:

1 Alyautdin, R. N. Pharmacology. Illustrated textbook / ed. R. N. Alyautdin. - Москва : ГЭОТАР-Медиа, 2020. - 312 с. - ISBN 978-5-9704-5665-1. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : <https://www.studentlibrary.ru/book/ISBN9785970456651.html>

2 Kharkevitch, D. A. Pharmacology : Textbook / Translation of Russian textbook, 12th edition, revised and improved. - М. : ГЭОТАР-Медиа, 2019. - 2nd edition. - 680 pages with illustrations. - 680 с. - ISBN 978-5-9704-4985-1. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : <https://www.studentlibrary.ru/book/ISBN9785970449851.html>

Additional literature:

1 Еникеева, Д. А. Pharmacology. Part 1. Workbook / Еникеева Д. А. , Бондарчук Н. Г. , Аляутдин Р. Н. , Фисенко В. П. - Москва : ГЭОТАР-Медиа, 2021. - 264 с. - ISBN 978-5-9704-6202-7. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : <https://www.studentlibrary.ru/book/ISBN9785970462027.html>

2 Kogay L. V. Pharmacology: practical manual / L. V. Kogay, O. E. Vaizova, A. I. Vengerovsky. - Томск : Издательство СибГМУ, 2019. - 230 с. - Текст : электронный // ЭБС "Букаль" : [сайт]. - URL : <https://www.books-up.ru/ru/book/pharmacology-practical-manual-10236726/>

3 Общая рецептура по фармакологии = General formulation on pharmacology : учебно-методическое пособие для англоязычных студентов ФИС / К. А. Татжикова, Н. В. Тимофеева, Д. А. Горшков и др. - Астрахань : Астраханский ГМУ, 2019. - 41 с. - ISBN 9785442404890. - Текст : электронный // ЭБС "Букаль" : [сайт]. - URL : <https://www.books-up.ru/ru/book/obcshaya-receptura-po-farmakologii-11237607/>

c) Educational and methodical literature

1. Serov V. A. Educational and methodological guidelines for the organization of independent work of students in the discipline «Clinical pharmacology» for the specialty 31.05.01 «General medicine» / V. A. Serov; Ulyanovsk State University. - Ulyanovsk : UISU, 2022. - 12 p. - Неопубликованный ресурс; На англ. яз. - URL: <http://lib.ulsu.ru/MegaPro/Download/MObject/11574> . - Режим доступа: ЭБС УлГУ. - Текст : электронный.

AGREED:

Head Librarian, Scientific library, Order, 12.05.2022

The position of the worker scientific library

Full name

signature

data

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LIST OF CHANGES of
Educational plan of discipline "Clinical pharmacology"
Speciality 31.05.01. «General medicine»

№	Content of the change or a link to the attached text of the	Full name of the head of the Department developing the discipline	Signature	Date
1	Introduction of changes to item C) Professional databases, information and reference systems item 11 "Educational, methodological and information support of the discipline" with the design of Appendix 1	Shutov A.M.		29.05.2023
2	Introduction of changes to item A) Recommended Literature item 11 "Educational, methodological and information support of the discipline" with the design of Appendix 2	Shutov A.M.		29.05.2023

Appendix 1

11. EDUCATIONAL-METHODICAL AND INFORMATION SUPPORT OF DISCIPLINE

Профессиональные базы данных, информационно-справочные системы

1. Электронно-библиотечные системы:

1.1. Цифровой образовательный ресурс IPRsmart : электронно-библиотечная система : сайт / ООО Компания «Ай Пи Ар Медиа». - Саратов, [2023]. - URL: <http://www.iprbookshop.ru>. - Режим доступа: для зарегистрир. пользователей. - Текст : электронный.

1.2. Образовательная платформа ЮРАЙТ : образовательный ресурс, электронная библиотека : сайт / ООО Электронное издательство «ЮРАЙТ». – Москва, [2023]. - URL: <https://urait.ru>. – Режим доступа: для зарегистрир. пользователей. - Текст : электронный.

1.3. База данных «Электронная библиотека технического ВУЗа (ЭБС «Консультант студента») : электронно-библиотечная система : сайт / ООО «Политехресурс». – Москва, [2023]. – URL: <https://www.studentlibrary.ru/cgi-bin/mb4x>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.4. Консультант врача. Электронная медицинская библиотека : база данных : сайт / ООО «Высшая школа организации и управления здравоохранением-Комплексный медицинский консалтинг». – Москва, [2023]. – URL: <https://www.rosmedlib.ru>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

15. Большая медицинская библиотека : электронно-библиотечная система : сайт / ООО «Букап». – Томск, [2023]. – URL: <https://www.books-up.ru/library/>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.6. ЭБС Лань : электронно-библиотечная система : сайт / ООО ЭБС «Лань». – Санкт-Петербург, [2023]. – URL: <https://e.lanbook.com>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.7. ЭБС Znanium.com : электронно-библиотечная система : сайт / ООО «Знаниум». - а, [2023]. - URL: <http://znanium.com> . – Режим доступа : для зарегистрир.

рвателей. - Текст : электронный.

3. Базы данных периодических изданий:
3.1. eLIBRARY.RU: научная электронная библиотека : сайт / ООО «Научная

3.2. Электронная библиотека «Издательского дома «Гребенников» (Grebennikov) : электронная библиотека / ООО ИД «Гребенников». – Москва, [2023]. – URL: <https://id2.action-media.ru/Personal/Products>. – Режим доступа : для авториз. пользователей. – Текст : электронный

4. Федеральная государственная информационная система «Национальная электронная библиотека» : электронная библиотека : сайт / ФГБУ РГБ. – Москва, [2023]. – URL: <https://нэб.рф>. – Режим доступа : для пользователей научной библиотеки. – Текст :

5. Российское образование : федеральный портал / учредитель ФГАУ «ФИЦТО». URL : <http://eduinfo.edu.ru>. Томск, 2017 г.

6. Электронная библиотечная система УлГУ : модуль «Электронная библиотека» АБИС Мега-ПРО / ООО «Дата Экспресс». – URL: <http://lib.ulsu.ru/MegaPro/Web>. – Режим доступа : для пользователей научной библиотеки . – Текст : электронный.

Согласовано:

Ведущий инженер

Чуре
фии

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Ministry of science and high education RF Ulyanovsk State University Faculty of Medicine named after Biktimiriv T.Z., iMEiPC	Form	
F- Educational plan of the discipline		

Appendix 2

11. EDUCATIONAL-METHODICAL AND INFORMATION SUPPORT OF DISCIPLINE

Клиническая фармакология

a) List of recommended literature

Main literature:

1 Alyautdin, R. N. Pharmacology. Illustrated textbook / ed. R. N. Alyautdin. - Москва : ГЭОТАР-Медиа, 2020. - 312 с. - ISBN 978-5-9704-5665-1. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : <https://www.studentlibrary.ru/book/ISBN9785970456651.html>

2 Kharkevitch, D. A. Pharmacology : Textbook / Translation of Russian textbook, 12th edition, revised and improved. - М. : ГЭОТАР-Медиа, 2019. - 2nd edition. - 680 pages with illustrations. - 680 с. - ISBN 978-5-9704-4985-1. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : <https://www.studentlibrary.ru/book/ISBN9785970449851.html>

Additional literature:

1 Еникеева, Д. А. Pharmacology. Part 1. Workbook / Еникеева Д. А. , Бондарчук Н. Г. , Аляутдин Р. Н. , Фисенко В. П. - Москва : ГЭОТАР-Медиа, 2021. - 264 с. - ISBN 978-5-9704-6202-7. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : <https://www.studentlibrary.ru/book/ISBN9785970462027.html>

2 Mazurova, O. V. Pharmacology: guidelines for practical classes for foreign students. Part 1 / O. V. Mazurova, A. N. Sapoznikov, M. P. Markevich ; Ulyanovsk State University, Institute of Medicine, Ecology and Physical culture. - 2nd edition. - Электрон. текстовые дан. (1 файл : 1,07 Мб). - Ульяновск : UISU, 2020. - 76 р. - На англ. яз. - URL: <https://portal.ulsu.ru/course/view.php?id=87537>. - Режим доступа: Портал ЭИОС УлГУ. -Загл. с экрана. - Текст : электронный.

3 Kogay, L. V. Pharmacology: practical manual : учебное пособие / L. V. Kogay, О. Е. Vaizova, A. I. Vengerovsky. — Томск : СибГМУ, 2019. — 230 с. — Текст : электронный // Лань : электронно-библиотечная система. — URL: <https://e.lanbook.com/book/276260>

4 Klets, O. P. Pharmacology. Workshop practice : учебное пособие / О. Р. Klets, О. В. Antipina. — Иркутск : ИГМУ, 2019. — 47 с. — Текст : электронный // Лань : электронно-библиотечная система. — URL: <https://e.lanbook.com/book/158778>

c) Educational and methodical literature

1. Serov V. A. Educational and methodological guidelines for the organization of independent work of students in the discipline «Clinical pharmacology» for the specialty 31.05.01 «General medicine» / V. A. Serov; Ulyanovsk State University. - Ulyanovsk : UISU, 2022. - 12 p. - Неопубликованный ресурс; На англ. яз. - URL: <http://lib.ulsu.ru/MegaPro/Download/MObject/11574> . - Режим доступа: ЭБС УлГУ. - Текст : электронный.

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Leading specialist S. A. Dolnikova Smos 06.06.2023

The position of the worker scientific library

Full name

signature

data

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LIST OF CHANGES of

Educational plan of discipline "Clinical pharmacology"

Speciality 31.05.01. «General medicine»

№	Content of the change or a link to the attached text of the	Full name of the head of the Department developing the discipline	Signature	Date
1	Introduction of changes to item C) Professional databases, information and reference systems item 11 "Educational, methodological and information support of the discipline" with the design of Appendix 1	Shutov A.M.		16.05.2024
2	Introduction of changes to item A) Recommended Literature item 11 "Educational, methodological and information support of the discipline" with the design of Appendix 2	Shutov A.M.		16.05.2024

Appendix 1

11. EDUCATIONAL-METHODICAL AND INFORMATION SUPPORT OF DISCIPLINE

a) List of recommended literature

Main literature:

1 Alyautdin, R. N. Pharmacology. Illustrated textbook / ed. R. N. Alyautdin. - Москва : ГЭОТАР-Медиа, 2020. - 312 с. - ISBN 978-5-9704-5665-1. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : <https://www.studentlibrary.ru/book/ISBN9785970456651.html>

2 Kharkevitch, D. A. Pharmacology : Textbook / Translation of Russian textbook, 12th edition, revised and improved. - М. : ГЭОТАР-Медиа, 2019. - 2nd edition. - 680 pages with illustrations. - 680 c. - ISBN 978-5-9704-4985-1. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : <https://www.studentlibrary.ru/book/ISBN9785970449851.html>

3. Clinical pharmacology of antibacterial drugs : учебное пособие / М. В. Stolbova, I. S. Mitrofanova, T. V. Chernysheva [и др.]. — Оренбург : ОрГМУ, 2020. — 108 с. — Текст : электронный // Лань : электронно-библиотечная система. — URL: <https://e.lanbook.com/book/257978>

Additional literature:

1 Еникеева, Д. А. Pharmacology. Part 1. Workbook / Еникеева Д. А. , Бондарчук Н. Г. , Аляутдин Р. Н. , Фисенко В. П. - Москва : ГЭОТАР-Медиа, 2021. - 264 с. - ISBN 978-5-9704-6202-7. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : <https://www.studentlibrary.ru/book/ISBN9785970462027.html>

2 Kogay L. V. Pharmacology: practical manual / L. V. Kogay, O. E. Vaizova, A. I. Vengerovsky. - Томск : Издательство СибГМУ, 2019. - 230 с. - Текст : электронный // ЭБС

Ministry of science and high education RF Ulyanovsk State University Faculty of Medicine named after Biktimiriv T.Z., iMEiPC	Form	
F- Educational plan of the discipline		

"Букап" : [сайт]. - URL : <https://www.books-up.ru/ru/book/pharmacology-practical-manual-10236726/>

3 Mazurova, O. V. Pharmacology: guidelines for practical classes for foreign students. Part 1 / O. V. Mazurova, A. N. Sapoznikov, M. P. Markevich ; Ulyanovsk State University, Institute of Medicine, Ecology and Physical culture. - 2nd edition. - Электрон. текстовые дан. (1 файл : 1,07 Мб). - Ulyanovsk : UlSU, 2020. - 76 р. - На англ. яз. - URL: <https://portal.ulsu.ru/course/view.php?id=87537>. - Режим доступа: Портал ЭИОС УлГУ. - Загл. с экрана. - Текст : электронный.

4 Klets, O. P. Pharmacology. Workshop practice : учебное пособие / O. P. Klets, O. V. Antipina. — Иркутск : ИГМУ, 2019. — 47 с. — Текст : электронный // Лань : электронно-библиотечная система. — URL: <https://e.lanbook.com/book/158778>

5. Kogay L. V. Pharmacology: practical manual / L. V. Kogay, O. E. Vaizova, A. I. Vengerovsky. - Томск : Издательство СибГМУ, 2019. - 230 с. - Текст : электронный // ЭБС "Букап" : [сайт]. - URL : <https://www.books-up.ru/ru/book/pharmacology-practical-manual-10236726>

c) Educational and methodical literature

1. Serov V. A. Educational and methodological guidelines for the organization of independent work of students in the discipline «Clinical pharmacology» for the specialty 31.05.01 «General medicine» / V. A. Serov; Ulyanovsk State University. - Ulyanovsk : UlSU, 2022. - 12 p. - Неопубликованный ресурс; На английском яз. - URL: <http://lib.ulsu.ru/MegaPro/Download/MObject/11574>. - Режим доступа: ЭБС УлГУ. - Текст : электронный.

AGREED:

Leading specialist Стадольникова/_____С.Стадольникова/_____2024

Appendix 2

b) Software

- 1) OS: Windows
- 2) Antivirus: DrWeb
- 3) Office Suite: Microsoft Office

d) Professed data base, directory and search systems:

Ministry of science and high education RF Ulyanovsk State University Faculty of Medicine named after Biktimiriv T.Z., iMEiPC F- Educational plan of the discipline	Form	
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Профессиональные базы данных, информационно-справочные системы

1. Электронно-библиотечные системы:

1.1. Цифровой образовательный ресурс IPRsmart : электронно-библиотечная система : сайт / ООО Компания «Ай Пи Ар Медиа». - Саратов, [2024]. – URL: <http://www.iprbookshop.ru>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.2. Образовательная платформа ЮРАЙТ : образовательный ресурс, электронная библиотека : сайт / ООО Электронное издательство «ЮРАЙТ». – Москва, [2024]. – URL: <https://urait.ru> . – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.3. База данных «Электронная библиотека технического ВУЗа (ЭБС «Консультант студента») : электронно-библиотечная система : сайт / ООО «Политехресурс». – Москва, [2024]. – URL: <https://www.studentlibrary.ru/cgi-bin/mb4x>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.4. Консультант врача. Электронная медицинская библиотека : база данных : сайт / ООО «Высшая школа организации и управления здравоохранением-Комплексный медицинский консалтинг». – Москва, [2024]. – URL: <https://www.rosmedlib.ru>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.5. Большая медицинская библиотека : электронно-библиотечная система : сайт / ООО «Букап». – Томск, [2024]. – URL: <https://www.books-up.ru/tu/library/> . – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.6. ЭБС Лань ; электронно-библиотечная система : сайт / ООО ЭБС «Лань». – Санкт-Петербург, [2024]. – URL: <https://e.lanbook.com>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.7. ЭБС Znanium.com : электронно-библиотечная система : сайт / ООО «Знаниум». – Москва, [2024]. - URL: <http://znanium.com> . – Режим доступа : для зарегистрир. пользователей. - Текст : электронный.

2. КонсультантПлюс [Электронный ресурс]: справочная правовая система. / ООО «Консультант Плюс» - Электрон. дан. - Москва : КонсультантПлюс, [2024].

3. eLIBRARY.RU: научная электронная библиотека : сайт / ООО «Научная Электронная Библиотека». – Москва, [2024]. – URL: <http://elibrary.ru>. – Режим доступа : для авториз. пользователей. – Текст : электронный

4. Федеральная государственная информационная система «Национальная электронная библиотека» : электронная библиотека : сайт / ФГБУ РГБ. – Москва, [2024]. – URL: <https://изб.рф>. – Режим доступа : для пользователей научной библиотеки. – Текст : электронный.

5. Российское образование : федеральный портал / учредитель ФГАУ «ФИЦТО». – URL: <http://www.edu.ru>. – Текст : электронный.

6. Электронная библиотечная система УлГУ : модуль «Электронная библиотека» АБИС Мега-ПРО / ООО «Дата Экспресс». – URL: <http://lib.ulsu.ru/MegaPro/Web>. – Режим доступа : для пользователей научной библиотеки. – Текст : электронный.

Инженер ведущий



Шуренко Ю.В.

2024