Federal State Budgetary Institution of Higher Professional Education «North-Ossetian Sate Medical Academy» of the Ministry of Healthcare of the Russian Federation
Education and Methodics management

APPROVED
acting Rector
_____ O.V. Remizov
February 19, 2020

WORKING PROGRAM OF DISCIPLINE

"PHARMACOLOGY"

Specialty 31.05.01 General medicine (specialty)

Form of education **Full-time**

The period of development 6 years
(standard term of training)

Department of Pharmacology with Clinical Pharmacology

When developing a work program, the discipline is based on:

FSES on specialty 31.05.01 General medicine, approved by the Ministry of Education and Science of the Russian Federation on February 9, 2016.

Curriculum on specialty 31.05.01 General medicine approved by the Scientific Council of the Federal State Budgetary Institution of Higher Professional Education «North-Ossetian Sate Medical Academy» of the Ministry of Healthcare of the Russian Federation

Education and Methodics managementFebruary 19, 2020, Protocol No. 3

The work program of the discipline was approved at the meeting of the Department of Pharmacology with Clinical Pharmacology from February 11, 2020, Protocol No. 9

The work program of the discipline was approved at a meeting of the central coordinating educational and methodological council dated February 12, 2020, protocol No. 3.

The Scientific Council of the Federal State Budgetary Institution of Higher Professional Education «North-Ossetian Sate Medical Academy» of the Ministry of Healthcare of the Russian Federation

Education and Methodics management from February 11, 2020, Protocol No. 3, approved the work program of the discipline.

Developers:

Head. Chair, Professor L.Z. Bolieva

Associate Professor M.D.Daurova

Reviewers:

Astakhova Z.T. - Head of the Department of Internal Diseases № 4 Federal State Budgetary Institution of Higher Professional Education «North-Ossetian Sate Medical Academy» of the Ministry of Healthcare of the Russian Federation

Education and Methodics management, Doctor of Medical Sciences, Professor

Morozov V.A. - Head of the Department of Pharmacy State Budget Educational Institution higher professional education "North Ossetian State University. K.L. Khetagurov, candidate of pharmacy. Sci., Associate Professor

Contents of the work program

1. the name of the discipline;
2. list of planned results of training in the discipline, correlated with the planned results of the development of the educational program;
3. indication of the place of the discipline in the structure of the educational program;
4. The amount of discipline in credit units, indicating the number of academic or astronomical hours allocated to the contact work of students with the teacher (by types of training sessions) and to the independent work of students;
5. content of the discipline, structured according to topics (sections) indicating the number of academic or astronomical hours assigned to them and types of training sessions;
6. list of educational and methodological support for independent work of students in discipline;
7. A fund of evaluation tools for conducting intermediate certification of trainees in discipline;
8. List of basic and additional educational literature necessary for mastering the discipline;
9. list of resources of the information and telecommunication network "Internet" (hereinafter referred to as the "Internet" network), necessary for mastering the discipline;
10. 1methodical instructions for students to learn the discipline;
11. List of information technologies used in the implementation of the educational process for discipline, including a list of software and information reference systems (if necessary);
12. A description of the material and technical base necessary for the implementation of the educational process for discipline.

2. The list of planned results of training in the discipline and the results of mastering the educational program

№№ п/п	Competency number / index	Contents of the discipline (or its sections)	Results of development		
			to know	be able to	to master
1	2	3			
1.	GPC-1	Introduction to pharmacology.	The content of the discipline, its tasks, the history of development of domestic pharmacology, achievements and problems of Russian pharmacology.	To apply acquired knowledge	Use information resources
2.	GPC-5	General pharmacology.	Definition of the concepts of pharmacokinetics and pharmacodynamics, ways of drug administration, features of absorption, distribution, biotransformation, excretion; factors affecting the absorption, distribution, metabolism and excretion of drugs from the body; pharmacokinetic indicators: volume of distribution (Vd), elimination rate constant (Kelim), half-elimination period (t1/2), clearance (Cl), equilibrium concentration (Css), bioavailability (F), the value of these indicators.	Calculate the main pharmacokinetic parameters	Algorithm for evaluating the main parameters of drug pharmacokinetics
		Drugs that affect the peripheral nervous system	Principles of drug classification, names of pharmacological groups and international non-generic names, as well as physical and chemical characteristics of drugs, pharmacodynamics, pharmacokinetics of these groups of drugs, the main dosage forms, routes of administration. means that affect afferent innervation agents that affect efferent innervation	Write prescriptions for medicines for appropriate indications	The algorithm for selecting the drug, dosage form and dosage regimen depending on the clinical situation
		Drugs that affect the Central nervous system	Principles of classification of General anesthetics, ethyl alcohol, sleeping pills, antiepileptic drugs, antiparkinsonian drugs, analgesics, psychotropic drugs, antipsychotic drugs, antidepressants, drugs for the treatment of mania, anxiolytics, sedatives, psychostimulants, nootropic drugs, analeptics, drugs that cause drug dependence. Names of pharmacological groups and international	Write prescriptions for medicines for appropriate indications	The algorithm for selecting the drug, dosage form and dosage regimen depending on the clinical situation

			nonproprietary names, as well as physical and chemical characteristics of drugs, pharmacodynamics, pharmacokinetics of these groups of drugs, the main dosage forms, routes of administration.		
		Means that affect the functions of Executive bodies	Principles of classification, names of pharmacological groups and international non-proprietary names, physical and chemical characteristics, as well as their pharmacodynamics, side effects, indications for use, to have an idea about the features of the pharmacokinetics of drugs in these groups, the main dosage forms: agents that affect the function of the respiratory agents that affect the cardiovascular system of the means influencing functions of bodies of pishevarenie, agents that affect the tone and contractile activity of the myometrium, agents that affect the blood system.	Write prescriptions for medicines for appropriate indications	The algorithm for selecting the drug, dosage form and dosage regimen depending on the clinical situation
		Substances with a predominant influence on the processes of tissue metabolism, inflammation and immune processes.	Principles of classification of hormones, their synthetic substitutes and antagonists, vitamin preparations, preparations of water-soluble vitamins, antiatherosclerotic, means, used for obesity, anti-inflammatory drugs, names, pharmacological groups, international nonproprietary names, also physico-chemical characteristics of drugs, pharmacodynamics, adverse effects, indications for use, have an idea about the features of the pharmacokinetics of the drugs of these groups, main dosage forms, routes of administration.	Write prescriptions for medicines for appropriate indications	The algorithm for selecting the drug, dosage form and dosage regimen depending on the clinical situation

		Antimicrobial, antiviral and antiparasitic agents. Antitumor agents.	Principles of classification of antiseptic and disinfectants, antibacterial chemotherapeutic agents (beta-lactams, macrolides and azalides, tetracyclines, phenicols, aminoglycosides, polymyxins, lincosamides, glycopeptides, fusidins, sulfonamides, quinolone derivatives, synthetic antimicrobials of different chemical structure), anti-syphilitic agents, anti-tuberculosis agents, antiviral agents, Antiprotozoal agents, antifungal agents, synthetic antifungal agents, antitumor (antiblastoma) agents, names of their pharmacological groups and international non-proprietary names. As well as the physical and chemical characteristics of the drugs, pharmacodynamics (main effects, localization and mechanism of action), side effects, indications for use, have an idea about the features of the pharmacokinetics of these groups of drugs, the main dosage forms, routes of administration.	Write prescriptions for medicines for appropriate indications	The algorithm for selecting the drug, dosage form and dosage regimen depending on the clinical situation
3.	GPC-6	General recipe	Recipe, its structure. Basis of preparation of the recipes. Prescription forms. Solid, soft, liquid dosage forms. Dosage forms for injection. Rules for prescribing them in prescriptions. state Pharmacopoeia. The concept of rules for prescription and over-the-counter medication. Documents regulating the turnover of medicines. Rules for storage and use of medicines	Write prescriptions for various medicinal forms	Rules for writing prescriptions for narcotic and potent drugs
4.	GPC-7	Drugs that affect the peripheral nervous system	Principles of drug classification, names of pharmacological groups and international non-generic names, as well as physical and chemical characteristics of drugs, pharmacodynamics, pharmacokinetics of these groups of drugs, the main dosage forms, routes of administration. means that affect afferent innervation agents that affect efferent innervation	Write prescriptions for medicines for appropriate indications	The algorithm for selecting the drug, dosage form and dosage regimen depending on the clinical situation
		Drugs that affect the Central nervous system	Principles of classification of General anesthetics, ethyl alcohol, sleeping pills, antiepileptic drugs, antiparkinsonian drugs, analgesics, psychotropic drugs, antipsychotic drugs, antidepressants, drugs for the treatment of mania, anxiolytics, sedatives,	Write prescriptions for medicines for appropriate indications	The algorithm for selecting the drug, dosage form and dosage regimen depending on the

			psychostimulants, nootropic drugs, analeptics, drugs that cause drug dependence. Names of pharmacological groups and international nonproprietary names, as well as physical and chemical characteristics of drugs, pharmacodynamics, pharmacokinetics of these groups of drugs, the main dosage forms, routes of administration.		clinical situation
		Means that affect the functions of Executive bodies	Principles of classification, names of pharmacological groups and international non-proprietary names, physical and chemical characteristics, as well as their pharmacodynamics, side effects, indications for use, to have an idea about the features of the pharmacokinetics of drugs in these groups, the main dosage forms: agents that affect the function of the respiratory agents that affect the cardiovascular system of the means influencing functions of bodies of pishevarenie, agents that affect the tone and contractile activity of the myometrium, agents that affect the blood system.	Write prescriptions for medicines for appropriate indications	The algorithm for selecting the drug, dosage form and dosage regimen depending on the clinical situation
		Substances with a predominant influence on the processes of tissue metabolism, inflammation and immune processes.	Principles of classification of hormones, their synthetic substitutes and antagonists, vitamin preparations, preparations of water-soluble vitamins, antiatherosclerotic, means, used for obesity, anti-inflammatory drugs, names, pharmacological groups, international nonproprietary names, also physico-chemical characteristics of drugs, pharmacodynamics, adverse effects, indications for use, have an idea about the features of the pharmacokinetics of the drugs of these groups, main dosage forms, routes of administration.	Write prescriptions for medicines for appropriate indications	The algorithm for selecting the drug, dosage form and dosage regimen depending on the clinical situation
		Antimicrobial, antiviral and antiparasitic agents. Antitumor agents.	Principles of classification of antiseptic and disinfectants, antibacterial chemotherapeutic agents (beta-lactams, macrolides and azalides, tetracyclines, phenicols, aminoglycosides, polymyxins, lincosamides, glycopeptides, fusidins, sulfonamides, quinolone derivatives, synthetic antimicrobials of different chemical	Write prescriptions for medicines for appropriate indications	The algorithm for selecting the drug, dosage form and dosage regimen depending on the clinical situation

			structure), anti-syphilitic agents, anti-tuberculosis agents, antiviral agents, Antiprotozoal agents, antifungal agents, synthetic antifungal agents, antitumor (antiblastoma) agents, names of their pharmacological groups and international non-proprietary names. As well as the physical and chemical characteristics of the drugs, pharmacodynamics (main effects, localization and mechanism of action), side effects, indications for use, have an idea about the features of the pharmacokinetics of these groups of drugs, the main dosage forms, routes of administration.		
5.	GPC-8	Drugs that affect the peripheral nervous system	Principles of drug classification, names of pharmacological groups and international non-generic names, as well as physical and chemical characteristics of drugs, pharmacodynamics, pharmacokinetics of these groups of drugs, the main dosage forms, routes of administration. means that affect afferent innervation agents that affect efferent innervation	Write prescriptions for medicines for appropriate indications	The algorithm for selecting the drug, dosage form and dosage regimen depending on the clinical situation
		Drugs that affect the Central nervous system	Principles of classification of General anesthetics, ethyl alcohol, sleeping pills, antiepileptic drugs, antiparkinsonian drugs, analgesics, psychotropic drugs, antipsychotic drugs, antidepressants, drugs for the treatment of mania, anxiolytics, sedatives, psychostimulants, nootropic drugs, analeptics, drugs that cause drug dependence. Names of pharmacological groups and international nonproprietary names, as well as physical and chemical characteristics of drugs, pharmacodynamics, pharmacokinetics of these groups of drugs, the main dosage forms, routes of administration.	Write prescriptions for medicines for appropriate indications	The algorithm for selecting the drug, dosage form and dosage regimen depending on the clinical situation
		Means that affect the functions of Executive bodies	Principles of classification, names of pharmacological groups and international non-proprietary names, physical and chemical characteristics, as well as their pharmacodynamics, side effects, indications for use,	Write prescriptions for medicines for appropriate indications	The algorithm for selecting the drug, dosage form and dosage regimen

			to have an idea about the features of the pharmacokinetics of drugs in these groups, the main dosage forms: agents that affect the function of the respiratory agents that affect the cardiovascular system of the means influencing functions of bodies of pishevarenie, agents that affect the tone and contractile activity of the myometrium, agents that affect the blood system.		depending on the clinical situation
		Substances with a predominant influence on the processes of tissue metabolism, inflammation and immune processes.	Principles of classification of hormones, their synthetic substitutes and antagonists, vitamin preparations, preparations of water-soluble vitamins, antiatherosclerotic, means, used for obesity, anti-inflammatory drugs, names, pharmacological groups, international nonproprietary names, also physico-chemical characteristics of drugs, pharmacodynamics, adverse effects, indications for use, have an idea about the features of the pharmacokinetics of the drugs of these groups, main dosage forms, routes of administration.	Write prescriptions for medicines for appropriate indications	The algorithm for selecting the drug, dosage form and dosage regimen depending on the clinical situation
		Antimicrobial, antiviral and antiparasitic agents. Antitumor agents.	Principles of classification of antiseptic and disinfectants, antibacterial chemotherapeutic agents (beta-lactams, macrolides and azalides, tetracyclines, phenicols, aminoglycosides, polymyxins, lincosamides, glycopeptides, fusidins, sulfonamides, quinolone derivatives, synthetic antimicrobials of different chemical structure), anti-syphilitic agents, anti-tuberculosis agents, antiviral agents, Antiprotozoal agents, antifungal agents, synthetic antifungal agents, antitumor (antiblastoma) agents, names of their pharmacological groups and international non-proprietary names. As well as the physical and chemical characteristics of the drugs, pharmacodynamics (main effects, localization and mechanism of action), side effects, indications for use, have an idea about the features of the pharmacokinetics of these groups of drugs, the main dosage forms, routes of administration.	Write prescriptions for medicines for appropriate indications	The algorithm for selecting the drug, dosage form and dosage regimen depending on the clinical situation

6.	PC-10	Drugs that affect the peripheral nervous system	Principles of drug classification, names of pharmacological groups and international non-generic names, as well as physical and chemical characteristics of drugs, pharmacodynamics, pharmacokinetics of these groups of drugs, the main dosage forms, routes of administration. means that affect afferent innervation agents that affect efferent innervation	Write prescriptions for medicines for appropriate indications	The algorithm for selecting the drug, dosage form and dosage regimen depending on the clinical situation
		Drugs that affect the Central nervous system	Principles of classification of General anesthetics, ethyl alcohol, sleeping pills, antiepileptic drugs, antiparkinsonian drugs, analgesics, psychotropic drugs, antipsychotic drugs, antidepressants, drugs for the treatment of mania, anxiolytics, sedatives, psychostimulants, nootropic drugs, analeptics, drugs that cause drug dependence. Names of pharmacological groups and international nonproprietary names, as well as physical and chemical characteristics of drugs, pharmacodynamics, pharmacokinetics of these groups of drugs, the main dosage forms, routes of administration.	Write prescriptions for medicines for appropriate indications	The algorithm for selecting the drug, dosage form and dosage regimen depending on the clinical situation
		Means that affect the functions of Executive bodies	Principles of classification, names of pharmacological groups and international non-proprietary names, physical and chemical characteristics, as well as their pharmacodynamics, side effects, indications for use, to have an idea about the features of the pharmacokinetics of drugs in these groups, the main dosage forms: agents that affect the function of the respiratory agents that affect the cardiovascular system of the means influencing functions of bodies of pishevarenie, agents that affect the tone and contractile activity of the myometrium, agents that affect the blood system.	Write prescriptions for medicines for appropriate indications	The algorithm for selecting the drug, dosage form and dosage regimen depending on the clinical situation
		Substances with a predominant influence on the processes of tissue metabolism, inflammation and immune processes.	Principles of classification of hormones, their synthetic substitutes and antagonists, vitamin preparations, preparations of water-soluble vitamins, antiatherosclerotic, means, used for obesity, anti-inflammatory drugs, names, pharmacological groups, international nonproprietary names, also physico-	Write prescriptions for medicines for appropriate indications	The algorithm for selecting the drug, dosage form and dosage regimen depending on the clinical situation

			chemical characteristics of drugs, pharmacodynamics, adverse effects, indications for use, have an idea about the features of the pharmacokinetics of the drugs of these groups, main dosage forms, routes of administration.		
		Antimicrobial, antiviral and antiparasitic agents. Antitumor agents.	Principles of classification of antiseptic and disinfectants, antibacterial chemotherapeutic agents (beta-lactams, macrolides and azalides, tetracyclines, phenicols, aminoglycosides, polymyxins, lincosamides, glycopeptides, fusidins, sulfonamides, quinolone derivatives, synthetic antimicrobials of different chemical structure), anti-syphilitic agents, anti-tuberculosis agents, antiviral agents, Antiprotozoal agents, antifungal agents, synthetic antifungal agents, antitumor (antiblastoma) agents, names of their pharmacological groups and international non-proprietary names. As well as the physical and chemical characteristics of the drugs, pharmacodynamics (main effects, localization and mechanism of action), side effects, indications for use, have an idea about the features of the pharmacokinetics of these groups of drugs, the main dosage forms, routes of administration.	Write prescriptions for medicines for appropriate indications	The algorithm for selecting the drug, dosage form and dosage regimen depending on the clinical situation
7.	PC-11	Drugs that affect the peripheral nervous system	Principles of drug classification, names of pharmacological groups and international non-generic names, as well as physical and chemical characteristics of drugs, pharmacodynamics, pharmacokinetics of these groups of drugs, the main dosage forms, routes of administration. means that affect afferent innervation agents that affect efferent innervation	Write prescriptions for medicines for appropriate indications	The algorithm for selecting the drug, dosage form and dosage regimen depending on the clinical situation
		Drugs that affect the Central nervous system	Principles of classification of General anesthetics, ethyl alcohol, sleeping pills, antiepileptic drugs, antiparkinsonian drugs, analgesics, psychotropic drugs, antipsychotic drugs, antidepressants, drugs for the treatment of mania, anxiolytics, sedatives, psychostimulants, nootropic drugs, analeptics, drugs that cause drug dependence. Names of pharmacological groups and international	Write prescriptions for medicines for appropriate indications	The algorithm for selecting the drug, dosage form and dosage regimen depending on the clinical situation

			nonproprietary names, as well as physical and chemical characteristics of drugs, pharmacodynamics, pharmacokinetics of these groups of drugs, the main dosage forms, routes of administration.		
		Means that affect the functions of Executive bodies	Principles of classification, names of pharmacological groups and international non-proprietary names, physical and chemical characteristics, as well as their pharmacodynamics, side effects, indications for use, to have an idea about the features of the pharmacokinetics of drugs in these groups, the main dosage forms: agents that affect the function of the respiratory agents that affect the cardiovascular system of the means influencing functions of bodies of pishevarenie, agents that affect the tone and contractile activity of the myometrium, agents that affect the blood system.	Write prescriptions for medicines for appropriate indications	The algorithm for selecting the drug, dosage form and dosage regimen depending on the clinical situation
		Substances with a predominant influence on the processes of tissue metabolism, inflammation and immune processes.	Principles of classification of hormones, their synthetic substitutes and antagonists, vitamin preparations, preparations of water-soluble vitamins, antiatherosclerotic, means, used for obesity, anti-inflammatory drugs, names, pharmacological groups, international nonproprietary names, also physico-chemical characteristics of drugs, pharmacodynamics, adverse effects, indications for use, have an idea about the features of the pharmacokinetics of the drugs of these groups, main dosage forms, routes of administration.	Write prescriptions for medicines for appropriate indications	The algorithm for selecting the drug, dosage form and dosage regimen depending on the clinical situation
		Antimicrobial, antiviral and antiparasitic agents. Antitumor agents.	Principles of classification of antiseptic and disinfectants, antibacterial chemotherapeutic agents (beta-lactams, macrolides and azalides, tetracyclines, phenicols, aminoglycosides, polymyxins, lincosamides, glycopeptides, fusidins, sulfonamides, quinolone derivatives, synthetic antimicrobials of different chemical structure), anti-syphilitic agents, anti-tuberculosis agents, antiviral agents, Antiprotozoal agents, antifungal agents, synthetic antifungal agents, antitumor (antiblastoma) agents, names of their pharmacological groups and	Write prescriptions for medicines for appropriate indications	The algorithm for selecting the drug, dosage form and dosage regimen depending on the clinical situation

			international non-proprietary names. As well as the physical and chemical characteristics of the drugs, pharmacodynamics (main effects, localization and mechanism of action), side effects, indications for use, have an idea about the features of the pharmacokinetics of these groups of drugs, the main dosage forms, routes of administration.		

3. The place of discipline in the structure of the educational program

The discipline "Pharmacology" refers to the basic part of the Block 1 of the FSES HE in the Specialty 31.05.01 General medicine (specialty).

4. Scope of discipline

№ № п/п	Type of work		Total credit units (CU)	Total hours	Semester	
					V	VI
					hours	
1	2		3	4		
1	**Contact work of students with teacher (total), including:**		**4**	**146**	100	46
2	Lectures (L)		-	44	28	16
3	Clinical practical exercises (CPE)		-	102	72	30
4	Seminars (S)		-	-	-	
5	Laboratory work (LW)		-	-	-	
6	**Independent Student Work (ISW)**		**2**	**70**	44	26
7	**Type of intermediate attestation**	set-off (S)				
		exam (E)	**1**	**36**	-	36
8	**TOTAL:** Total labor intensity	hours		**252**	144	108
		CU	**7**		4	3

5. Contents of the discipline

№ №	№ семестра	Наименование раздела учебной дисциплины (модуля)	Виды учебной деятельности, включая самостоятельную работу студентов (в часах)				Формы текущего контроля успеваемости (*по неделям семестра)*
			L	**CPE**	**ISW**	**Total**	
1	2	3	4	5	6	7	8
1	V	Introduction. General Recipe. General pharmacology.	4	18	10	32	Falsework test work.
2	V	Remedies affecting the peripheral nervous system	10	14	11	35	I, TT, ST, LT
3	V	Means that affect the central nervous system.	6	18	11	35	I, TT, ST, LT
4	V	Means that affect the functions of executive bodies.	8	22	12	42	I, TT, ST, LT

5	VI	Means that affect the functions of executive bodies.	2	4	3	9	I, TT, ST, LT
6	VI	Substances with a predominant effect on the processes of tissue metabolism, inflammation and immune processes.	2	10	9	21	I, TT, ST, LT
7	VI	Antimicrobial, antiviral, antifungal agents. Anti-inflammatory drugs.	12	16	14	42	I, TT, ST, LT
		TOTAL:	44	102	70	216	

Примечание: I – interviews, TT – test tasks, ST – situational tasks, LT – learning tasks

6. List of educational and methodological support for independent work of students in discipline

№	№ semester	Name of the teaching methodical development
1	5	Bolieva ZL, Byazrova SS., Filippova YuA, Vialkova AB, Ovsyannikov AI, Daurova MD, Balaeva DH, Archegova EG, Boraeva MK, Fidarova IR. General Recipe: Textbook.- Vladikavkaz, 2017.- 47 p.
2	5	Bolieva L.Z., Ovsyannikov A. I., Daurova M. D., Archegova, E. G. General pharmacology. Textbook.-- Vladikavkaz. - 2017. - 49 p.
3	5	Bolieva LZ, Ovsyannikova AI, Daurova MD Drugs affecting the peripheral nervous system. Teaching-methodical manual. - Vladikavkaz. - 2017.- 53 p.
4	5	Bolieva LZ, Vialkova AB, Byazrova SS. Drugs affecting the central nervous system. Teaching-methodical manual. - Vladikavkaz. - 2017.- 63 pp.
5	6	Bolieva LZ, Daurova MD, Archegova EG, Boraeva MK. Medicines that affect the cardiovascular system. Teaching-methodical manual. - Vladikavkaz .- 2017.- 72 p.
6	5,6	Bolieva LZ, Chochieva AR, Byazrova SS Medicines affecting the functions of executive organs, inflammation, metabolism // Educational and methodical manual for independent work of students. - 70 s. Vladikavkaz. - 2008. - The Griffon of the UMO №17-28 / 674 dated 17.12.2008.
7	6	Bolieva LZ., Ovsyannikova AI., Daurova MD., Archegova EG., Byazrova S. S. Chemotherapeutic agents. Educational and methodological guide.- Vladikavkaz.- 2017.- 53 p.

7. The Fund of Evaluation Means for the Intermediate Certification of Students in Discipline

№	List of competences	№ semester	Indicators of evaluation	Criteria for evaluation	Scale of assessment	Name of appraisal fund
1	**2**	**3**	**4**	**5**	**6**	**7**
1	GPC-1 GPC-5 GPC-6 GPC-7 GPC-8 PC -10 PC -11	V,VI	see the standard for assessing the quality of education, approved. By order of the Federal State Budgetary	see the standard for assessing the quality of education, approved. By order of the Federal State Budgetary	see the standard for assessing the quality of education, approved. By order of the Federal State Budgetary	Examination tickets to offset; Test tasks; Control tasks

			Institution of Higher Professional Education «North-Ossetian Sate Medical Academy» of the Ministry of Healthcare of the Russian Federation Education and Methodics management 10.07.2018, No.264/o	Institution of Higher Professional Education «North-Ossetian Sate Medical Academy» of the Ministry of Healthcare of the Russian Federation Education and Methodics management 10.07.2018, No.264/o	Institution of Higher Professional Education «North-Ossetian Sate Medical Academy» of the Ministry of Healthcare of the Russian Federation Education and Methodics management 10.07.2018, No.264/o	

8. The list of basic and additional educational literature necessary for mastering the discipline

3.5.1. Main literature

№	Name	Authors	Year, place of publication	Number of copies	
				in library	at the department
1	2	3	4	7	8
1.	Pharmacology. Textbook .- 10-11 th ed., Pererab., Additional and corrected.	Kharkevich DA	Moscow: GEOTAR-Media, 2010 2015	60 80	

3.5.2. Additional literature

№	Name	Authors	Year, place of publication	Number of copies	
				in library	at the department
1	2	3	4	7	8
1.	General Recipe: Textbook.	Bolieva ZL, Byazrova SS., Filippova YuA, Vialkova AB, Ovsyannikov AI, Daurova MD, Balaeva DH, Archegova EG, Boraeva MK, Fidarova IR.	Vladikavkaz, 2017.- 47 p.	-	1
2.	General pharmacology. Textbook.	Bolieva L.Z., Ovsyannikov A. I., Daurova M. D., Archegova, E. G	Vladikavkaz .- 2017.- 49	-	1
3.	Drugs affecting the peripheral nervous system. Teaching-methodical manual.	Bolieva LZ, Ovsyannikova AI, Daurova MD	Vladikavkaz .- 2017.- 53 p.	-	

4.	Drugs affecting the central nervous system. Teaching-methodical manual.	Bolieva LZ, Vialkova AB, Byazrova SS,	Vladikavkaz .- 2017.- 63 p.	-	1
5.	Medicines that affect the cardiovascular system. Teaching-methodical manual.	Bolieva LZ, Daurova MD, Archegova EG, Boraeva MK.	Vladikavkaz .- 2017.- 72 p.	-	1
6.	Medicines affecting the functions of the executive organs, inflammation, metabolism. Teaching-methodical manual.	Bolieva LZ, Chochieva AR, Byazrova SS	Vladikavkaz.- 2008.- 70 with. UMO №17-28 / 674 of 17.12.2008	-	1
7.	Chemotherapeutic agents. Teaching-methodical manual.		Vladikavkaz .- 2017.- 53 p.	-	1
8.	A Guide to Laboratory Studies in Pharmacology: A Tutorial	Harkevich D. A.	M .: Medical News Agency, 2010	1	
9.	Pharmacology: a study guide.	Maysky V. V.	Moscow: GEOTAR-Media, 2006.- 400 p.	102	
10.	The Register of Drugs of Russia "Encyclopedia of medicines"			1	

9. The list of resources of the information and telecommunication network "Internet", necessary for mastering the discipline

1. "Student consultant"

www.studmedlib.ru/ru/book/ISBN9785970415429.html
www.studmedlib.ru/ru/book/ISBN9785970418406.html
www.studmedlib.ru/ru/book/ISBN9785970410714.html
www.studmedlib.ru/ru/book/ISBN9785970416235.html

2. Interregional Society of Evidence-Based Medicine.

http://www.osdm.org/index.php

3. Moscow Center for Evidence-Based Medicine

http://evbmed.fbm.msu.ru/

10. Methodical instructions for students to learn the discipline

The training consists of classrooms (146 hours), including a lecture course (44 hours) and practical classes (102 hours), and independent work (70 hours). The teaching method consists in the sequential study of general pharmacology, the general formulation and various groups of pharmacological preparations. For each section, the department developed methodological recommendations for students, as well as guidelines for teachers.

The initial level of knowledge of students is determined by testing, the current control of the mastery of the subject is determined by an oral survey, by solving situational problems. Independent work of students is carried out by solving situational tasks and tasks by recipe, writing a paper. At the end of the cycle, an examination is provided in the form of a test control and an oral questionnaire.

The work of the student in the group forms a sense of teamwork and sociability.

Independent work with literature, writing essays, form the ability to analyze medical and social problems, the ability to use in practice natural sciences, biomedical and clinical sciences in various types of professional and social activities.

Having a holistic view of pharmacology is necessary to provide a theoretical foundation for the training of dentists. Ability to correctly and freely use the acquired knowledge and ideas about pharmacology when communicating with colleagues and patients to ensure a professional level in the training of a doctor in the specialty of dentistry.

In accordance with the requirements of GEF-3 HPE, active and interactive forms of conducting classes are widely used in the educational process. The proportion of sessions conducted in interactive forms is at least 40% of classroom activities.

Independent work of students implies preparation for an independent independent work of a student for a theoretical course: 1) mastering of lecture material, the student's work on the issues brought to the practical lesson; 2) study of basic and additional sources of information on practical exercises: a) preparation and assimilation of the content of practical classes, design and delivery of work to the teacher; b) the performance of test tasks. Types of student learning activities: 1) independent work under the guidance of a teacher (counseling): consulting a student with a teacher on a theoretical course; performance of tasks by recipe; 2) independent work on the types of individual tasks and supervisory activities: individual tasks and monitoring activities for the amount of classroom and independent work of the student according to the plan of the educational program, based on the time budget for a particular discipline.

Work with educational literature is considered as a kind of educational work on the discipline of pharmacology and is performed within the hours allocated for its study (in the section of the CDS).

The following organizational structure of a practical lesson on private pharmacology may be proposed:

1. The introductory word of the teacher, the formulation of the purpose and objectives of the lesson
2. Discussion of homework, answers to students' questions.
3. Performance of control tasks on the medical prescription.
4. Performing the program tasks for independent work.
5. Discussion of the material on the topic of the lesson.
6. Solution of multi-stage situational and role tasks (tasks for training).
7. Hearing abstracts.
8. Independent work with the annotations and instructions to the preparations.
9. Conducting demonstration experiments on the effect of drugs on animals or demonstrating them using audio-visual training aids.
10. Summing up the session, the final word of the teacher.

In the plan of practical exercises included the final sessions, combining the material of a number of topics. In these classes, students learn to generalize the learned teaching material. Control tasks in the final lessons allow you to assess the degree of mastery of the topics covered.

11. List of information technologies used in the implementation of the educational process in discipline

Semester	View Type of lessons L, PW	Used educational technologies (active, interactive)	Number of hours	% of sessions in an interactive form	List of Software
5,6	L	A set of slides, videos for a traditional lecture	44		Microsoft Office PowerPoint; Internet Exploer

5,6	PW	A set of questions and tasks for a practical task, a set of situational tasks for the AP, a set of case histories for the analysis of clinical cases.	102	40	
5,6	S	A set of questions and tasks for independent work	70		Microsoft Office

12. Description of the material and technical base necessary for the implementation of the educational process in discipline

№/п	Name of equipment	Amount	Technical condition
1	**2**	**3**	**4**
Special equipment			
1.	A computer	4	2 – satisfactorilye 2 – to write-off
2.	A laptop	4	4 – satisfactorilye
3.	A projector	2	1 – satisfactorilye 1 – need to be replaced
4.	Copying equipment: scanner, copier, printer	5	5– satisfactorilye
5.	Uninterruptable power source	2	to write-off
Tables			
6.	Thematic tables	12	4 - need to be replaced