Summary of the working program of the academic discipline

«Clinical pharmacology with basics of pharmacotherapy»

General Educational Program of higher education (<u>specialist's degree programs</u>) 31.05.01 General Medicine Department: General and clinical pharmacology

1. The purpose of mastering the discipline *participation in the formation of relevant competencies*: UC-1 (IUC-1.2, IUC-1.3), GPC-7 (I GPC -7.1; I GPC -7.2; I GPC -7.3), PC-8 (IPC-8.1; IPC-8.2), PC-10 (IPC-10.1, IPC-10.2)

2. Position of the academic discipline in the structure of the General Educational **Program (GEP).**

2.1. The discipline refers to the core part of Block 1 of GEP HE

3. Deliverables of mastering the academic discipline and metrics of competence acquisition

Mastering the discipline aims at acquiring the following universal (UC) and general professional (GPC) and professional (PC) competencies

				As a result of ma	stering the di	scipline, the	
	Comp	The content of the	e Code and name of	students should:			
№	etence	competence (or	the competence				
	code	its part)	acquisition metric	know	be able to	possess	
	UC-1	able to carry out a	IUC 1.4. Develops	- principles of	- to identify	- methods for	
		critical analysis of	and substantiates a	clinical and	groups of	evaluating the	
		problem situations	strategy for solving a	pharmacological	drugs for	clinical	
		based on a	problem situation on	approaches to the	the	effectiveness	
		systematic	the basis of systemic	choice of medicines	treatment of	and safety of	
		approach, to	and interdisciplinary	tor the	a particular	drugs;	
		develop a strategy	approaches.	pharmacotherapy of	disease,	- skills in	
		of actions		major diseases	based on	explaining to	
				based on current	the	arug users	
					mechanism	now to take	
				recommendations	of action of	them,	
				and treatment	drugs, the	including	
				standards, taking	state of the	when used in	
				nito account the	the	combination;	
1				evidence based	nredicted	- skills III	
1				medicine	impact of	recommendati	
				- basic	nlanned	ons to drug	
				nharmacokinetic	pharmacoth	users on the	
				parameters of drugs	erany on it	prevention of	
				in healthy	based on	their side	
				individuals and in	current	effects:	
				various pathologies.	Clinical	- skills of	
				their features in the	recommend	informing	
				elderly, pregnant,	ations and	medical	
				nursing mothers	treatment	professionals	
				and newborns;	standards,	and	
				- basic principles of	taking into	consumers	
				pharmacokinetic	account the	about	
				studies and	principles	pharmacodyna	
				monitoring of drug	of evidence	mics,	

				concentration; - features of drug dosage depending on age, the nature of the disease and other factors; - the main types of drug interaction (pharmaceutical, pharmacokinetic and pharmacodynamic), drugs-inducers and drugs - inhibitors of liver enzyme systems; - methods for evaluating the effectiveness and safety of drugs; - undesirable drug reactions, methods of their prevention and correction; - methods of pharmacoeconomic research	-based medicine- analyze the rationality of choosing a specific drug in the group of analogues for the treatment of the main symptom complexes of various diseases according to the criteria of effectivenes s and safety; - choose methods for monitoring the effectivenes s and safety of drug use and assume the possible risk of developing undesirable	pharmacokinet ic features, interactions and side effects of drugs; -skills of compliance with the rules of medical, pharmaceutica l ethics and deontology in relations with medical professionals and drug users
	GPC-2	able to apply	IGPC 2.1 Analyzes	-principles of	undesirable drug reactions; - apply pharmacoec onomic research methods	- methods for
2	010-2	knowledge about morphofunctional features, physiological conditions and pathological processes in the human body to solve professional tasks	the pharmacokinetics and pharmacodynamics of a drug based on knowledge about morphofunctional features, physiological conditions and pathological processes in the human body IGPC 2.2. Explains	clinical and pharmacological approaches to the choice of medicines drugs for the pharmacotherapy of major diseases based on current Clinical Guidelines and treatment standards, taking into account the principles of evidence-based	groups of drugs for the treatment of a particular disease, based on the mechanism of action of drugs, the state of the body and the	evaluating the clinical effectiveness and safety of drugs; - skills in explaining to drug users how to take them, including when used in combination; - skills in

	the main and side	medicine;	predicted	providing
	effects of drugs.	- basic	impact of	recommendati
	taking into account	pharmacokinetic	planned	ons to drug
	morphofunctional	parameters of drugs	pharmacoth	users on the
	features	in healthy	erapy on it,	prevention of
	physiological	individuals and in	based on	their side
	physiological	various pathologies,	current	effects;
	conditions and	their features in the	Clinical	- skills of
	pathological	elderly, pregnant,	recommend	informing
	processes in the	nursing mothers	ations and	medical
	human body	and newborns:	treatment	professionals
	IGPC -2.3. Takes	- basic principles of	standards.	and
	into account	pharmacokinetic	taking into	consumers
	morphofunctional	studies and	account the	about
	features,	monitoring of drug	principles	pharmacodyna
	physiological	concentration;	of evidence	mics,
	conditions and	- features of drug	-based	pharmacokinet
	pathological	dosage depending	medicine-	ic features,
	processes in the	on age, the nature	analyze the	interactions
	human body when	of the disease and	rationality	and side
	choosing over-the-	other factors;	of choosing	effects of
	counter medications	- the main types of	a specific	drugs;
		drug interaction	drug in the	- skills of
		(pharmaceutical,	group of	compliance
		pharmacokinetic	analogues	with the rules
		and	for the	of medical,
		pharmacodynamic),	treatment of	pharmaceutica
		drugs-inducers and	the main	1 ethics and
		drugs - inhibitors of	symptom	deontology in
		liver enzyme	complexes	relations with
		systems;	of various	medical
		- methods for	diseases	professionals
		evaluating the	according	and drug users
		effectiveness and	to the	
		safety of drugs;	criteria of	
		- undesirable drug	effectivenes	
		reactions, methods	s and	
		of their prevention	safety;	
		and correction;	- choose	
		- methods of	methods for	
		pharmacoeconomic	monitoring	
		research	the	
			effectivenes	
			s and safety	
			of drug use	
			and assume	
			the possible	
			risk of	
			developing	
			undestrable	
			arug.	
			reactions;	
			- apply	
			pharmacoec	
			onomic	
			research	
			methods	

3	PC-3	capable of providing pharmaceutical information and consulting during the release and sale of medicinal products for medical use	IPC-3.1. Provides information and consulting assistance to visitors of a pharmacy organization when choosing medicines IPC-3.2. Informs medical professionals about medicines, their synonyms and analogues, possible side effects IPC-3.3. Takes a decision on the replacement of the prescribed medicinal product with synonymous or analogous drugs in the prescribed manner based on information about groups of medicinal products and synonyms within the same international non-patent name	-principles of clinical and pharmacological approaches to the choice of medicines for pharmacotherapy of major diseases based on current Clinical Recommendations and treatment standards, taking into account the principles of evidence-based medicine; - basic pharmacokinetic parameters of drugs in healthy individuals and in various pathologies, their features in the elderly, pregnant, nursing mothers and newborns; - basic principles of pharmacokinetic studies and monitoring of drug concentration; - features of drug dosage depending on age, the nature of the disease and other factors; - the main types of drug interaction (pharmacodynamic), drugs-inducers and drugs - inhibitors of liver enzyme systems; - methods for	- to identify groups of drugs for the treatment of a particular disease, based on the mechanism of action of drugs, the state of the body and the predicted impact of planned pharmacoth erapy on it, based on current Clinical recommend ations and treatment standards, taking into account the principles of evidence -based medicine- analyze the rationality of choosing a specific drug in the group of analogues for the treatment of the main symptom complexes of various diseases according	- methods for evaluating the clinical effectiveness and safety of drugs; - skills in explaining to drug users how to take them, including when used in combination; - skills in providing recommendati ons to drug users on the prevention of their side effects; - skills of informing medical professionals and consumers about pharmacodyna mics, pharmacodyna mics, interactions and side effects of drugs; - skills of compliance with the rules of medical, pharmaceutica l ethics and deontology in relations with medical professionals
				and pharmacodynamic), drugs-inducers and drugs - inhibitors of liver enzyme systems; - methods for evaluating the effectiveness and safety of drugs; - undesirable drug reactions, methods of their prevention	treatment of the main symptom complexes of various diseases according to the criteria of effectivenes s and safety; - choose	pharmaceutica l ethics and deontology in relations with medical professionals and drug users
				and correction; - methods of	methods for monitoring	

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		pharmacoeconomic	the	
		research	effectivenes	
			s and safety	
			of drug use	
			and assume	
			the possible	
			risk of	
			developing	
			undesirable	
			drug	
			reactions;	
			- apply	
			pharmacoec	
			onomic	
			research	
			methods	

4. Volume of the academic discipline and types of academic work Total labor intensity of the discipline is _9___ CU (__324_AH)

Type of educational work	Labor	intensity	Labor intensity (AH)	
	volume in	volume in	in semester	s
	credit units	academic hours		
	(CU)	(AH)	8	9
Classroom work, including	4.8	174	112	62
Lectures (L)	0.9	34	22	12
Laboratory practicum (LP)*	does not provide			
Practical exercises (P)	3,9	140	90	50
Seminars (S)	does not provide	2		
Student's individual work (SIW)	3,2	114	68	46
Mid-term assessment exam	1	36	-	36
TOTAL LABOR INTENSITY	9	324	180	144

5. Sections of the academic discipline and competencies that are formed

N⁰	Competence code	Section name of the discipline
	UC-1 (IUC-1.4),	General issues of clinical pharmacology and
1	GPC-2 (IGPC-2.1, IGPC-2.2, IGPC-2.3),	pharmacotherapy
	PC-3 (IPC-3.1, IPC-3.2, IPC-3.3)	
	UC-1 (IUC-1.4),	Clinical pharmacology of antimicrobial drugs
2	GPC-2 (IGPC-2.1, IGPC-2.2, IGPC-2.3),	
	PC-3 (IPC-3.1, IPC-3.2, IPC-3.3)	
	UC-1 (IUC-1.4),	Clinical pharmacology of antiviral and antifungal drugs
3	GPC-2 (IGPC-2.1, IGPC-2.2, IGPC-2.3),	
	PC-3 (IPC-3.1, IPC-3.2, IPC-3.3)	
	UC-1 (IUC-1.4),	Clinical pharmacology of psychotropic drugs
4	GPC-2 (IGPC-2.1, IGPC-2.2, IGPC-2.3),	
	PC-3 (IPC-3.1, IPC-3.2, IPC-3.3)	
	UC-1 (IUC-1.4),	Clinical pharmacology of analgesic drugs
5	GPC-2 (IGPC-2.1, IGPC-2.2, IGPC-2.3),	
	PC-3 (IPC-3.1, IPC-3.2, IPC-3.3)	
	UC-1 (IUC-1.4),	Clinical pharmacology of anti-inflammatory drugs
6	GPC-2 (IGPC-2.1, IGPC-2.2, IGPC-2.3),	
	PC-3 (IPC-3.1, IPC-3.2, IPC-3.3)	

	UC-1 (IUC-1.4),	Clinical pharmacology of medicinal products used in
7	GPC-2 (IGPC-2.1, IGPC-2.2, IGPC-2.3),	diseases of the respiratory
	PC-3 (IPC-3.1, IPC-3.2, IPC-3.3)	
	UC-1 (IUC-1.4),	Clinical pharmacology of medicinal productsused in
8	GPC-2 (IGPC-2.1, IGPC-2.2, IGPC-2.3),	diseases of the digestive
	PC-3 (IPC-3.1, IPC-3.2, IPC-3.3)	
	UC-1 (IUC-1.4),	Clinical pharmacology of drugs used in diseases of the
9	GPC-2 (IGPC-2.1, IGPC-2.2, IGPC-2.3),	cardiovascular system
	PC-3 (IPC-3.1, IPC-3.2, IPC-3.3)	
	UC-1 (IUC-1.4),	Clinical pharmacology of drugs used in the treatment of
10	GPC-2 (IGPC-2.1, IGPC-2.2, IGPC-2.3),	anemia
	PC-3 (IPC-3.1, IPC-3.2, IPC-3.3)	
	UC-1 (IUC-1.4),	Clinical pharmacology of drugs affecting the hemostatic
11	GPC-2 (IGPC-2.1, IGPC-2.2, IGPC-2.3),	system
	PC-3 (IPC-3.1, IPC-3.2, IPC-3.3)	
	UC-1 (IUC-1.4),	Clinical pharmacology of drugsaffecting immune processes
12	GPC-2 (IGPC-2.1, IGPC-2.2, IGPC-2.3),	
	PC-3 (IPC-3.1, IPC-3.2, IPC-3.3)	
	UC-1 (IUC-1.4),	Clinical pharmacology of drugs used in skin-allergic
13	GPC-2 (IGPC-2.1, IGPC-2.2, IGPC-2.3),	diseases
	PC-3 (IPC-3.1, IPC-3.2, IPC-3.3)	
	UC-1 (IUC-1.4),	Clinical pharmacology of drugs that affect the hormonal
14	GPC-2 (IGPC-2.1, IGPC-2.2, IGPC-2.3),	regulation
	PC-3 (IPC-3.1, IPC-3.2, IPC-3.3)	