Federal State Budgetary Educational Institution of Higher Education
"Privolzhsky Research Medical University"

Ministry of Health of the Russian Federation

APPROVED
Vice-Rector for Academic Affairs
E.S. Bogomolova
31 August 2021

### **WORKING PROGRAM**

Name of the academic discipline: EMERGENCY CARE

Specialty: PHARMACY (33.05.01)

(code, name)

Qualification: PHARMACIST

Department: ANESTHESIOLOGY, RESUSCITATION AND TRANSFUSIOLOGY

Mode of study: FULL-TIME

Labor intensity of the academic discipline:72 academic hours

The working program has been developed in accordance with the Federal State Educational Standard for the specialty 33.05.01 "PHARMACY", approved by the Order of the Ministry of Science and Higher Education of the Russian Federation No. 219 or 27.03.

Developers of the working program:

Pichugin V.V. Doctor of Medical Sciences, Professor, Professor of the Department of Anesthesiology, Resuscitation and Transfusiology
Fedorov M.E. Candidate of Medical Sciences, Associate Professor of the Department of Anesthesiology, Resuscitation and Transfusiology

The program was reviewed and approved at the department meeting (protocol No.7, 30.08.21)

Head of the Department,

MD O.V. Voennov

(OV Voennov)

(signature)

**AGREED** 

Deputy Head of EMA ph.d. of biology \_\_\_\_\_ Lovtsova L.V.

30 August 2021

- **1.** The purpose and objectives of mastering the academic discipline EMERGENCY CARE (hereinafter the discipline):
- 1.1. The purpose of mastering the discipline: participation in the formation of competencies: UC-8, GPC-5
  - 1.2. Tasks of the discipline:
  - 1. methods of examination of the resuscitation patient
- 2. the main methods of the resuscitation, first aid and intensive therapy of patients with the most common syndromes
  - 1.3. Requirements to the deliverables of mastering the discipline As a result of completing the discipline, the student should

### Know:

- methods of examination of the resuscitation patient;
- clinical manifestations of the main syndromes of impaired vital activity of the body;
- the main methods of intensive therapy of patients with the most common syndromes;
- the main methods of first aid of patients with the most common syndromes
- features of first aid to victims in emergency situations

### Be able to:

- conduct an examination of a patient in critical condition;
- to evaluate the data of laboratory methods of examination of the resuscitation patient;
- -evaluate the data of instrumental survey methods;
- determine clinical death and other terminal conditions;
- perform cardiopulmonary resuscitation;
- provide first aid in case of emergency and life-threatening conditions;
- diagnose the main syndromes (acute lung injury syndrome, acute cardiovascular insufficiency, endogenous intoxication, pain syndrome, cerebral insufficiency syndromes);
- determine indications for substitution therapy and carry it out in the main life-threatening conditions;

#### Possess:

- skills of examination of a patient in critical condition;
- skills of non-invasive provision of airway patency;
- skills of oxygen therapy with nasopharyngeal catheters and masks;
- skills in diagnosing clinical death;
- skills of conducting indirect heart massage;
- the skills of performing artificial lung ventilation by expiratory methods and the simplest
- -breathing apparatus, taking into account age characteristics;
- skills of conducting drug therapy during cardiopulmonary resuscitation;
- skills of electrical defibrillation in adults;
- skills of rehabilitation of the tracheobronchial tree with the help of electro and mechanical suction:
- first aid skills in emergency and life-threatening conditions;

# 2. Position of the academic discipline in the structure of the General Educational Program of Higher Education (GEP HE) of the organization.

**2.1.** 2.1 The discipline "Emergency care" refers to the basic part of the cycle of block B1.U00.12. specialty: 33.05.01 "PHARMACY" (specialty level), approved by Order of the Ministry of Education and Science of the Russian Federation No. 219 dated March 27, 2018.. The discipline is studied in the 9th semesters.

2.2. The following knowledge, skills and abilities formed by previous academic disciplines are required for mastering the discipline: Human anatomy; histology; microbiology; life safety. Emergency medicine; pathology; pathological anatomy: pharmacology; first aid; clinical pharmacology with the basics of pharmacotherapy.

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

Mastering the discipline aims at acquiring the following universal (UC) or/and general professional (GPC)

As a result of mastering the							
	Commoton	The content of the	Code and name of	th	e students sho	ould:	
$N_{\underline{0}}$	Competen	competence (or its	the competence				
	ce code	part)	acquisition metric	know	be able to	possess	
		• /	•			1	
1.	UC-8.	Able to create and	UC-8.1. Analyzes	-features	-to conduct	- skills of	
		support in	the factors of	of first aid	an	examination	
		everyday life and	harmful influence	to victims,	examinatio	of a patient	
		in professional	on the vital activity	in	n of a	in a critical	
		activity, safe	of the elements of	emergency	patient in	condition;	
		living conditions	the habitat	situations	critical	- first aid	
		for the	(technical means,	and in	condition;	skills in	
		preservation of the	technological	centers of	-determine	emergency	
		natural	processes,	mass	clinical	and life-	
		environment,	materials, buildings	destruction	death and	threatening	
		ensuring the	and structures,	•	other	conditions.	
		sustainable	natural and social	- methods	terminal	- skills in	
		development of	phenomena)	of	conditions;	diagnosing	
		society, including	UC-8.2. Identifies	examinatio	-perform	clinical	
		in case of threat	dangerous and	n of the	cardiopul	death;	
		and occurrence of	harmful factors	resuscitati	monary	- skills of	
		emergency	within the	on patient;	resuscitati	conducting	
		situations and	framework of the	- clinical	on;	indirect heart	
		military conflicts	activity	manifestati	-provide	massage;	
			UC-8.3. Solves	ons of the	first aid in	skills of	
			problems related to	main	case of	artificial lung	
			safety violations	syndromes	emergency	ventilation.	
			and participates in	of	and life-		
			prevention activities	impaired	threatening		
			of emergencies in	vital	conditions;		
			the workplace	activity of			
			UC-8.4. Observes	the body			
			and explains rules				
			of conduct in the				
			event of				
			emergencies of				
			natural and man-				
			made origin,				
			provides first aid				
2.	GPC-5.	GPC-5. Able to	GPC-5.1.	- methods	-to conduct	- skills of	
		provide first aid on	Establishes the	of	an	examination	
		the territory of a	fact of the	examinatio	examinatio	of a patient	
		pharmaceutical	occurrence of an	n of a	n of a	in a critical	

			Τ .		Г .
	organization in case	emergency	patient in	patient in	condition;
	of emergency	condition of a	critical	critical	- skills of
	conditions for	visitor of a	condition;	condition;	non-invasive
	visitors before the	pharmacy	- clinical	-	airway
	arrival of an	organization, in	manifestati	determine	patency;
	ambulance team	which it is	ons of the	clinical	- skills of
		necessary	main	death and	oxygen
		to provide first aid	syndromes	other	therapy with
		GPC-5.2.	of	terminal	nasopharyng
		Conducts	impaired	conditions;	eal catheters
		measures to	vital	-perform	and masks;
		provide first aid	activity of	cardiopul	- skills in
		to visitors in case	the body;	monary	diagnosing
		of emergency	-the main	resuscitati	clinical
		conditions before	methods of	on;	death;
		the arrival of the	intensive	-provide	- skills of
		ambulance	therapy of	first aid in	conducting
		team	patients	case of	indirect heart
			with the	emergency	massage;
			most	and life-	- the skills of
			common	threatening	performing
			syndromes	conditions;	artificial lung
			;	-diagnose	ventilation
			-features	the main	by expiratory
			of first aid	syndromes	methods and
			to victims,	( acute	the simplest
			in	respiratory	breathing
			emergency	failure	apparatus,
			situations	syndrome -	taking into
			and in	ODN,	account age
			centers of	acute	characteristic
			mass	cardiovasc	s;
			destruction	ular	- skills of
			;	insufficien	conducting
				cy - OSN,	drug therapy
				restore	during
				airway	cardiopulmo
				patency by	nary
				non-	resuscitation;
				invasive	- skills of
				and	electrical
				invasive	defibrillation
				methods;	in adults;
					- first aid
					skills in
					emergency
					and life-
					threatening
					conditions.
					conditions.

№	Competen ce code	Section name of the discipline	The content of the section in teaching units
1	UC8 GПС5	Emergency care in cardiology	0,33
2	UC8 GПС5	Assistance in stopping blood circulation and breathing.	0,33
3	UC8 GПС5	Acute respiratory disorders	0,33
4	UC8 GIIC5	Emergency conditions in allergology	0,33
5	UC8 GIIC5	Providing assistance for disorders of consciousness.	0,33
6	UC8 GПC5	First aid in case of traumatic injury	0,33

5. Volume of the academic discipline and types of academic work

Type of educational work	Labor i	Labor intensity		Labor intensity (AH) in semesters	
	volume in credit units (CU)	volume in academic hours (AH)	№9	№10	
Classroom work, including	1,5	54	54		
Lectures (L)		12	12		
Laboratory practicum (LP)*					
Practicals (P)		36	36		
Seminars (S)					
Student's individual work (SIW)	0,5	24	24		
Mid-term assessment					
credit/exam (specify the type)			credit		
TOTAL LABOR INTENSITY	2	72	72		

# 6. Content of the academic discipline

6.1. Sections of the discipline and types of academic work

$N_{\underline{0}}$	Name of the section of the	Types of academic work* (in AH)					
	academic discipline	L	LP	P	S	SIW	total
1	Emergency care in cardiology	2		6		4	12
2	Assistance in stopping blood circulation and breathing.	2		6		4	12
3	Acute respiratory disorders	2		6		4	12
4	Emergency conditions in allergology	2		6		4	12
5	Providing assistance for disorders of consciousness	2		6		4	12
6	First aid in case of traumatic injury	2		6		4	12
	TOTAL/72	12		36		24	72

<sup>\* -</sup> L – lectures; LP – laboratory practicum; P – practicals; S – seminars; SIW – student's individual work.

# 6.2. Thematic schedule of educational work types:

### 6.2.1 Thematic schedule of lectures

№	Name of lecture topics	Volume in AH	
		semester 9	semester 10
1	Emergency care in cardiology	2	
2	Assistance in stopping blood circulation and breathing.	2	
3	Acute respiratory disorders	2	
4	Emergency conditions in allergology	2	
5	Providing assistance for disorders of consciousness	2	
6	First aid in case of traumatic injury	2	
	TOTAL (total - AH) 12	12	

6.2.2. The thematic plan of laboratory practicums (if this type of classes is stipulated in the curriculum)

Nº	Name of laboratory practicums	Volume in AH		
		semester	semester	
	TOTAL (total - AH)			

6.2.3. Thematic plan of practicals

No	Name of the topics of practicals	Volume in AH		
		semester 11 semester 12		
1	Emergency care in cardiology	6		
2	Assistance in stopping blood circulation and breathing	6		
3	Acute respiratory disorders	6		
4	Emergency conditions in allergology	6		
5	Providing assistance for disorders of consciousness	6		
6	First aid in case of traumatic injury	6		
	TOTAL (total - AH)	36		

6.2.4. Thematic plan of seminars (if this type of classes is stipulated in the curriculum)

№	Name of seminar topics	Volume in AH		
		semester	semester	

TOTAL (total - AH)	

6.2.5. Types and topics of student's individual work (SIW)

№	Types and topics of SIW	Volume in AH	
		semester	semester
1	Emergency care in cardiology	4	
2	Assistance in stopping blood circulation and	4	
	breathing		
3	Acute respiratory disorders	4	
4	Emergency conditions in allergology	4	
5	Providing assistance for disorders of consciousness	4	
6	First aid in case of traumatic injury	4	
	TOTAL (total - AH)	24	

7. Types of assessment formats for ongoing monitoring and mid-term assessment

		• •				Assessment formats		
No	Se mes ter No.	Types of control		Name of section of academic discipline	Competence codes	types	number of test questions	number of test task options
1.		Current monito ring	Control of mastering the topic	Emergency care in cardiology	UC-8, GPC-5	Ongoing testing. Oral individu al survey. Ongoing testing. Control work. Ongoing testing. Oral individu al survey	5	2
			Control of mastering the topic	Assistance in stopping blood circulation and breathing	UC-8, GPC-5	Ongoing testing. Oral individu al survey. Ongoing testing. Control work. Ongoing testing.	5	2

				Oral individu		
				al survey		
	Control of mastering the topic	Acute respiratory disorders	UC-8, GPC-5	Ongoing testing. Oral individu al survey. Ongoing testing. Control work. Ongoing testing. Control work.	5	2
	Control of mastering the topic	Emergency conditions in allergology	UC-8, GPC-5	al survey  1 - Ongoing testing. Oral individu al survey. 2 - Ongoing testing. Control work. 3 - Ongoing testing. Oral individu al survey	5	2
	Control of mastering the topic	Providing assistance for disorders of consciousness	UC-8, GPC-5	1 - Ongoing testing. Oral individu al survey. 2 - Ongoing testing. Control work. 3 - Ongoing testing. Oral individu	5	2

					al survey		
		Control of mastering the topic	First aid in case of traumatic injury	UC-8, GPC-5	Ongoing testing. Oral individu al survey. Ongoing testing. Control work. Ongoing testing. Oral individu al survey	5	2
2.	Mid- term assess ment	Exam/ Credit					

# 8. Educational, methodological and informational support for mastering the academic discipline (printed, electronic publications, the Internet and other network resources)

8.1. Key literature references

№	Name according to bibliographic requirements	Number of copies		
		at the department in the library		
1	Экстренные и неотложные состояния. С.А.Сумин, К.Г.Шаповалов. Учебное пособие для кадров высшей квалификации. М, МИА, 2019		1	
2	V. Pichugin. Anesthesiology and Intensive Care Medicine. Handbook for foreign students. Nizhny Novgorod: Publishing House of Privolzhsky Research Medical University 2018 271 p.		1	
3	«Анестезиология и реаниматология» Под ред. Сумин С.А., М., Медицинское информационное агенство, 2019		1	

8.2. Further reading

№	Name according to bibliographic requirements	Number of copies	
		at the department in the library	
1	Национальное руководство по интенсивной	1	
	терапии. Под ред ИБ Заболотских. М, МИА, 2019		
3	Национальное руководство по анестезиологи. Под	1	
	ред. ИБ Заболотских. М., Медицинское		
	информационное агенство 2019		

# 8.3. Electronic educational resources for teaching academic subjects

8.3.1. Internal Electronic Library System of the University (IELSU)

№	Name of the electronic resource	Brief description (content)	Access conditions	Number of users
	Internal Electronic Library	Works of the academic	from any	Not limited
	System (IELS)	staff of the Academy:	computer located	
		textbooks and manuals,	on the Internet,	
		monographs, collections of	using an	
		scientific papers, scientific	individual login	
		articles, dissertations,	and password	
		abstracts of dissertations,	[Electronic	
		patents	resource] -	
			Access mode:	
			http://95.79.46.20	
			6/login.php	

8.3.2. Electronic educational resources acquired by the University

		ces acquired by the University	A 1:4:	M I
№	Name of the electronic	Brief description (content)	Access conditions	Number of users
	resource			
1	Electronic database	Educational literature +	from any	General PRMU
-	"Student Consultant"	additional materials (audio,	computer located	subscription
		video, interactive	on the Internet,	swestip tion
		materials, test tasks) for	using an	
		higher medical and	individual login	
		pharmaceutical education.	and password	
		Publications are structured	[Electronic	
		by specialties and	resource] -	
		disciplines in accordance	Access mode:	
		with the current Federal	http://www.studm	
		State Educational	edlib.ru/	
		Standards of Higher		
		Education.		
2	International scientometric	Web of Science covers	Access is free	General PRMU
	database "Web of Science	materials on natural,	from PIM	subscription
	Core Collection"	technical, social, and	computers	
		humanitarian sciences;	[Electronic	
		takes into account the	resource] -	
		mutual citation of	Access to the	
		publications developed and	resource at:	
		provided by Thomson	http://apps.webof	
		Reuters; has built-in	knowledge.com	
		capabilities for searching,		
		analyzing, and managing		
	Damania	bibliographic information.	C 11	NT-4-11141
3	Domestic electronic	Periodicals on medical	- from the	Not limited
	periodicals	subjects and on higher school issues	computers of the	
		SCHOOLISSUES	academy on the	
			platform of the electronic library	
			eLibrary.RU	
			-journals	
			of the Media	
			Sphere publishing	
			house - from	
			nouse - mon	

			library computars	
			library computers	
			or	
			provided by	
			by the library at	
			the request of the	
			user	
			[Electronic	
			resource] -	
			Access mode:	
			https://elibrary.ru/	
4	Electronic library system	Educational and scientific	from any	General PRMU
-	"Bukap"	medical literature of	computer located	subscription
	Викар			subscription
		1	on the Internet by	
		including translations of	login and	
		foreign publications.	password, from	
			the computers of	
			the academy.	
			The subscription	
			editions are	
			available for	
			reading.	
			[Electronic	
			resource] -	
			Access mode:	
			http://www.books	
			^	
			-up.ru	

8.3.3 Open access resources

0.5.5	Open access resources		
№	Name of the electronic resource	Brief description (content)	Access conditions
1	Scientific Electronic Library eLIBRARY.RU	The largest Russian information portal in the field of science, technology, medicine and education, containing abstracts and full texts of scientific articles and publications.  [Electronic resource] – Access mode: https://elibrary.ru/	• 1
2	Open Access Scientific Electronic Library CyberLeninka	Full texts of scientific articles with annotations published in scientific journals of Russia and neighboring countries.  [Electronic resource] – Access mode: https://cyberleninka.ru/	from any computer located on the Internet

## 9. Material and technical support for mastering an academic discipline

- 9.1. List of premises for classroom activities for the discipline
- 1. Lecture hall equipped with multimedia equipment and microphone.
- 2. Offices for conducting clinical practical classes
- 3. Multidisciplinary accreditation and simulation Center
- 4. Intensive care and Intensive care units of MLPU clinical bases of the Department of Anesthesiology, Resuscitation and Transfusiology

### 9.2. List of equipment for classroom activities for the discipline

- 1. Multimedia complex
- 2. Information stands on the therapeutic and protective regime in MLPU, nutrition and hygiene of patients.

- 3. Medical documentation: medical history, outpatient card
- 4. Archival and educational case histories
- 5. Samples of the results of a general blood test.
- 6. Samples of urine test results.
- 7. Samples of the results of a biochemical blood test.
- 8. A set of electrocardiograms.
- 9. A set of radiographs for diseases of the lungs, heart and stomach.
- 10. Tonometers.
- 11. Phonendoscopes. Stethoscopes.
- 12. Tracking equipment (monitors).
- 13. Anesthesia and respiratory equipment
- 14. Equipment for infusion and transfusion therapy
- 15. Equipment for electro-pulse therapy
- 16. Extracorporeal detoxification equipment
- 17. Slides and multimedia presentations of lectures.
- 18. Simulators for practicing the skills of emergency care and CPR II-III and VI levels

9.3. A set of licensed and freely distributed software, including domestic production

	Software	number	Type of software	Manufacture	Number in	Contract No.
Ite m no.		of licenses		r	the unified register of Russian software	and date
1	Wtware	100	Thin Client Operating System	Kovalev Andrey Alexandrovic h	1960	2471/05-18 from 28.05.2018
2	MyOffice is Standard. A corporate user license for educational organizations, with no expiration date, with the right to receive updates for 1 year.	220	Office Application	LLC "NEW CLOUD TECHNOLO GIES"	283	without limitation, with the right to receive updates for 1 year.
3	LibreOffice		Office Application	The Document Foundation	Freely distributed software	
4	Windows 10 Education	700	Operating systems	Microsoft	Azure Dev Tools for Teaching Subscriptio n	
5	Yandex. Browser		Browser	«Yandex»	3722	
6	Subscription to MS Office Pro for 170 PCs for FGBOU VO "PIMU" of the Ministry of Health of Russia	170	Office Application	Microsoft		23618/HN100 30 LLC "Softline Trade" from 04.12.2020

## 10. List of changes to the working program (to be filled out by the template)

Federal State Budgetary Educational Institution of Higher Education
"Privolzhsky Research Medical University"

Ministry of Health of the Russian Federation
(FSBEI HE "PRMU" of the Ministry of Health of Russia)

# Department of ANESTHESIOLOGY, RESUSCITATION AND TRANSFUSIOLOGY

## **CHANGE REGISTRATION SHEET**

# working program for the academic discipline EMERGENCY CARE

		EMERGENCY CARE		
Field of	study / specialty / scient	entific specialty:	 (code, no	ume)
Training	g profile:		,	,
		e) - for master's degree programs		
Mode of	f study:			
		full-time/mixed attendance mode/extramure	al	
Position	Number and name of	Contents of the changes made	Effective date of	Contributor's
	the program section		the changes	signature
1				
Approve	ed at the department n	neeting		
	l Noof	<u> </u>		
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Head of	the Department	/		
departr	nent name, academic title	signature	print name	<del></del>