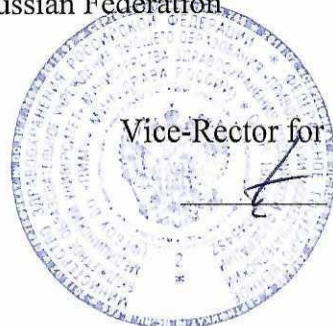


Federal State Budgetary Educational Institution of Higher Education  
"Privolzhsky Research Medical University"  
Ministry of Health of the Russian Federation



APPROVED

Vice-Rector for Academic Affairs

E.S. Bogomolova

31 August 2021

## WORKING PROGRAM

Name of the academic discipline: **FIRST AID**

Specialty: **31.05.01 GENERAL MEDICINE**  
(code, name)

Qualification: **GENERAL PRACTITIONER**

Department: **ANESTHESIOLOGY, RESUSCITATION AND TRANSFUSIOLOGY**

Mode of study: **FULL-TIME**

Labor intensity of the academic discipline: **36 academic hours**

Nizhny Novgorod  
2021

The working program has been developed in accordance with the Federal State Educational Standard for the specialty 31.05.01 "GENERAL MEDICINE", approved by the Order of the Ministry of Science and Higher Education of the Russian Federation No. 988 dated August 12, 2020

**Developers of the working program:**

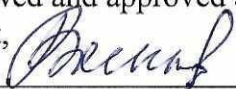
Pichugin V.V. Doctor of Medical Sciences, Professor, Professor of the Department of Anesthesiology, Resuscitation and Transfusiology

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)

30 August 2021

AGREED

Deputy Head of EMA

ph.d. of biology



Lovtsova L.V.

(signature)

30 August 2021

## **1. The purpose and objectives of mastering the academic discipline FIRST AID (hereinafter – the discipline):**

1.1. The purpose of mastering the discipline: *participation in the formation of competencies: PC-1,2*

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 **FIRST AID** refers to the basic part of the cycle of block B1.U00.12. specialty: 31.05.01 «GENERAL MEDICINE», approved by Order of the Ministry of Education and Science of the Russian Federation No. 988 dated August 12, 2020  
The discipline is studied in the 3th semesters.

**2.2. The following knowledge, skills and abilities formed by previous academic disciplines are required for mastering the discipline:** Human anatomy; histology; life safety. pathology.

**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)

№	Competence code	The content of the competence (or its part)	Code and name of the competence acquisition metric	As a result of mastering the discipline, the students should:		
				know	be able to	possess
PC -1		Able to assess the condition of a patient requiring medical care in emergency or emergency forms	<p>1.1 Knows: etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, features of the course, complications and outcomes of diseases of internal organs; methods of collecting complaints and anamnesis; methods of physical examination (examination, palpation, percussion, auscultation); a list of methods of laboratory and instrumental studies to assess the condition, the main medical indications for research and interpretation of results in patients requiring medical care in emergency or emergency forms</p> <p>1.2 Is able to: identify clinical signs of conditions requiring medical care in urgent or</p>	<p>- methods of examination of the resuscitation patient (analysis of complaints, clarification of the history of the disease and life history, physical examination of the patient, local examination of the pathological focus);</p> <p>-clinical manifestations of the main syndromes: acute blood loss, hemorrhagic shock, respiratory and circulatory disorders, coma, acute</p>	<p>- to conduct examination of the patient (analysis of complaints, clarification of the history of the disease and life history, physical examination of the patient, local examination of the pathological focus);</p> <p>-assign and interpret the results of modern laboratory and instrumental methods of examination;</p> <p>-determine the severity of the patient's condition;</p>	<p>- methods of general clinical examination;</p> <p>- skills in interpreting the results of laboratory and instrumental diagnostic methods;</p> <p>- the algorithm of a detailed clinical diagnosis;</p> <p>- basic medical diagnostic and therapeutic techniques for providing first aid in urgent and life-threatening conditions;</p> <p>-skills in determining clinical death;</p> <p>- methods of cardiopulmonary resuscitation;</p> <p>-skills in ensuring the patency of the</p>

		emergency forms	<p>hepatic-renal insufficiency, endogenous intoxication syndrome); -laboratory and instrumental diagnostics of emergency conditions;</p> <p>- possibilities of modern methods of substitution therapy for the most common emergency conditions; protocol of resuscitation measures; rules of registration of medical documentation</p>	<p>- formulate a diagnosis and determine a plan of urgent medical measures;</p> <p>-to carry out therapeutic measures for the most common diseases and conditions in adults and children;</p> <p>-timely identify life-threatening violations;</p> <p>-determine the indications for substitution therapy;</p> <p>- diagnose terminal conditions;</p> <p>-provide emergency assistance in case of a threat to life;</p> <p>-to carry out anti-shock measures;</p> <p>-to carry out anesthesia;</p> <p>-perform cardiopulmonary resuscitation</p>	<p>respiratory tract, oxygen therapy, infusion therapy and nutritional support;</p> <p>-skills of modern anesthesia;</p> <p>- proper maintenance of medical records</p>
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PC-2	PC-2 Able to recognize conditions arising from sudden acute diseases, exacerbation of chronic diseases without obvious signs of a threat to the patient's life and requiring urgent medical care, recognize conditions that pose a threat to the patient's life including conditions of clinical death (stopping vital functions of the human body (blood circulation and/or respiration), requiring the provision of emergency medical care	<p>2.1 Knows: etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, features of the course, complications and outcomes of diseases of internal organs; methods of collecting complaints and anamnesis in patients (their legal representatives); methods of physical examination of patients (examination, palpation, percussion, auscultation); a list of methods of laboratory and instrumental investigations to assess the patient's condition, the main medical indications for conducting research and interpreting the results; clinical signs of sudden cessation of blood circulation and/ or respiration</p> <p>2.2 Can: identify clinical signs of conditions requiring emergency medical care; identify conditions requiring emergency medical care, including clinical signs of sudden cessation of blood circulation and respiration</p>	<p>- regularities of the course of pathological processes in organs, systems and the body as a whole;</p> <p>-clinical manifestations of the main syndromes of impaired vital activity of the body;</p> <p>-systems for assessing the severity of the patient's condition;</p> <p>-systems for assessing operational and anesthetic risk;</p> <p>ICD</p>	<p>analyze the patterns of functioning of various organs and systems in various diseases and pathological processes;</p> <p>-use the algorithm of diagnosis (main, concomitant, complications) taking into account the ICD;</p> <p>- perform basic diagnostic measures to identify urgent and life-threatening conditions</p>	<p>-skills of physical examination of the patient;</p> <p>-skills of clinical and laboratory diagnostics of critical conditions;</p> <p>-skills of monitoring the main functions of the body in the provision of emergency care, the treatment of threatening syndromes, during surgery and the perioperative period;</p> <p>-modern methods of assessing the severity of the patient's condition</p>

**4. Sections of the academic discipline and competencies that are formed when mastering them**

№	Competence code	Section name of the discipline	The content of the section in teaching units
1	PC-1,2	First aid in case of sudden cardiac arrest. Basic resuscitation measures	0,2
2	PC-1,2	First aid for respiratory disorders	0,2
3	PC-1,2	First aid for burns and frostbite	0,2
4	PC-1,2	First aid in case of bleeding	0,2
5	PC-1,2	First aid for acute poisoning	0,2

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

Type of educational work	Labor intensity		Labor intensity (AH) in semesters	
	volume in credit units (CU)	volume in academic hours (AH)	№3	№4
Classroom work, including	0,75	26	26	
Lectures (L)		10	10	
Laboratory practicum (LP)*				
Practicals (P)		16	16	
Seminars (S)				
Student's individual work (SIW)	0,25	10	10	
Mid-term assessment				
credit/exam ( <i>specify the type</i> )			credit	
<b>TOTAL LABOR INTENSITY</b>	<b>1</b>	<b>36</b>	<b>36</b>	

### 6. Content of the academic discipline

#### 6.1. Sections of the discipline and types of academic work

№	Name of the section of the academic discipline	Types of academic work* (in AH)					
		L	LP	P	S	SIW	total
1	First aid in case of sudden cardiac arrest. Basic resuscitation measures	2		4		2	8
2	First aid for respiratory disorders	2		3		2	7
3	First aid for burns and frostbite	2		3		2	7
4	First aid in case of bleeding	2		3		2	7
5	First aid for acute poisoning	2		3		2	7
	<b>TOTAL/72</b>	<b>10</b>		<b>16</b>		<b>10</b>	<b>36</b>

\* - 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 3	semester 4
1	First aid in case of sudden cardiac arrest. Basic resuscitation measures	2	
2	First aid for respiratory disorders	2	
3	First aid for burns and frostbite	2	
4	First aid in case of bleeding	2	
5	First aid for acute poisoning	2	
	TOTAL (total - AH) 12	10	

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

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

6.2.3. Thematic plan of practicals

№	Name of the topics of practicals	Volume in AH	
		semester 3	semester 4
1	First aid in case of sudden cardiac arrest. Basic resuscitation measures	4	
2	First aid for respiratory disorders	3	
3	First aid for burns and frostbite	3	
4	First aid in case of bleeding	3	
5	First aid for acute poisoning	3	
	TOTAL (total - AH)	16	

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 3	semester 4
1	First aid in case of sudden cardiac arrest. Basic resuscitation measures	2	
2	First aid for respiratory disorders	2	
3	First aid for burns and frostbite	2	
4	First aid in case of bleeding	2	
5	First aid for acute poisoning	2	
	TOTAL (total - AH)	12	

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

№	Se mes ter No.	Types of control		Name of section of academic discipline	Competence codes	Assessment formats		
						types	number of test questions	number of test task options
1.		Current monitoring	Control of mastering the topic	First aid in case of sudden cardiac arrest. Basic resuscitation measures	PC-1,2	1 - Ongoing testing. Oral individual survey. 2 - Ongoing testing. Control work. 3 - Ongoing testing. Oral individual survey	5	2
			Control of mastering the topic	First aid for respiratory disorders	PC-1,2	1 - Ongoing testing. Oral individual survey. 2 - Ongoing testing. Control work. 3 - Ongoing testing. Oral individual survey	5	2

			Control of mastering the topic	First aid for burns and frostbite	<i>PC-1,2</i>	1 - Ongoing testing. Oral individual survey. 2 - Ongoing testing. Control work. 3 - Ongoing testing. Oral individual survey	5	2
			Control of mastering the topic	First aid in case of bleeding	<i>PC-1,2</i>	1 - Ongoing testing. Oral individual survey. 2 - Ongoing testing. Control work. 3 - Ongoing testing. Oral individual survey	5	2
			Control of mastering the topic	First aid for acute poisoning	<i>PC-1,2</i>	1 - Ongoing testing. Oral individual survey. 2 - Ongoing testing. Control work. 3 - Ongoing testing. Oral individual survey	5	2

2.	Mid-term assessment	Exam/ Credit						
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## 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 реанимации, 2015	1	
2	Национальное руководство по анестезиологии. Под ред. ИБ Заболотских. М., Медицинское информационное агенство 2019	1	
3	Национальное руководство по интенсивной терапии. Под ред. ИБ Заболотских. М., Медицинское информационное агенство 2019	1	

### 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 System (IELS)	Works of the academic staff of the Academy: textbooks and manuals, monographs, collections of scientific papers, scientific articles, dissertations, abstracts of dissertations, patents	from any computer located on the Internet, using an individual login and password [Electronic resource] – Access mode: <a href="http://95.79.46.206/login.php">http://95.79.46.206/login.php</a>	Not limited

#### 8.3.2. Electronic educational resources acquired by the University

№	Name of the electronic resource	Brief description (content)	Access conditions	Number of users
1	Electronic database "Student Consultant"	Educational literature + additional materials (audio, video, interactive materials, test tasks) for higher medical and pharmaceutical education. Publications are structured by specialties and disciplines in accordance with the current Federal State Educational Standards of Higher Education.	from any computer located on the Internet, using an individual login and password [Electronic resource] – Access mode: <a href="http://www.studmedlib.ru/">http://www.studmedlib.ru/</a>	General PRMU subscription
2	International scientometric database "Web of Science Core Collection"	Web of Science covers materials on natural, technical, social, and humanitarian sciences; takes into account the mutual citation of publications developed and provided by Thomson Reuters; has built-in capabilities for searching, analyzing, and managing bibliographic information.	Access is free from PIM computers [Electronic resource] – Access to the resource at: <a href="http://apps.webofknowledge.com">http://apps.webofknowledge.com</a>	General PRMU subscription
3	Domestic electronic periodicals	Periodicals on medical subjects and on higher school issues	- from the computers of the academy on the platform of the electronic library eLibrary.RU -journals of the Media Sphere publishing house - from library computers or provided by the library at the request of the user [Electronic resource] – Access mode: <a href="https://elibrary.ru/">https://elibrary.ru/</a>	Not limited
4	Electronic library system "Bukap"	Educational and scientific medical literature of Russian publishers, including translations of foreign publications.	from any computer located on the Internet by login and password, from the computers of the academy. The subscription	General PRMU subscription

			editions are available for reading. [Electronic resource] – Access mode: <a href="http://www.books-up.ru">http://www.books-up.ru</a>	
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### 8.3.3 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: <a href="https://elibrary.ru/">https://elibrary.ru/</a>	from any computer located on the Internet.
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: <a href="https://cyberleninka.ru/">https://cyberleninka.ru/</a>	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

<b>Item no.</b>	<b>Software</b>	<b>number of licenses</b>	<b>Type of software</b>	<b>Manufacturer</b>	<b>Number in the unified register of Russian software</b>	<b>Contract No. and date</b>
1	Wtware	100	Thin Client Operating System	Kovalev Andrey Alexandrovich	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 TECHNOLOGIES"	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 Subscription	
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/HN10030 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  
**ANESTHESIOLOGY AND INTENSIVE CARE**

Field of study / specialty / scientific specialty: \_\_\_\_\_  
(code, name)

Training profile: \_\_\_\_\_  
(name) - for master's degree programs

Mode of study: \_\_\_\_\_  
full-time/mixed attendance mode/extramural

Position	Number and name of the program section	Contents of the changes made	Effective date of the changes	Contributor's signature
1				

Approved at the department meeting  
Protocol No. \_\_\_\_\_ of \_\_\_\_\_ 20\_\_

Head of the Department

\_\_\_\_\_  
department name, academic title

\_\_\_\_\_  
signature

\_\_\_\_\_  
print name