



**MINISTRY OF HEALTH OF UKRAINE  
NATIONAL UNIVERSITY OF PHARMACY  
Department Pharmacology and Pharmacotherapy**

**First Aid with Introductory Medical Practice**

**WORK PROGRAM  
of educational component**

training for \_\_\_\_\_ Second (Master's) level of higher education \_\_\_\_\_  
(Higher Educational Level Name)  
field of knowledge \_\_\_\_\_ 22 Healthcare \_\_\_\_\_  
(Code and Knowledge Field Name)  
in specialty \_\_\_\_\_ 226 Pharmacy, Industrial pharmacy \_\_\_\_\_  
(Code and Specialty Name)  
of educational program \_\_\_\_\_ Pharmacy \_\_\_\_\_  
(Educational Program Name)  
specialization \_\_\_\_\_ \_\_\_\_\_  
(Specialization Name)

Kharkiv-2022  
(year of creation)

The work program of the educational component First Aid with Introductory Medical Practice in specialty 226 Pharmacy, Industrial pharmacy educational program Pharmacy for foreign students studying in English for applicants for higher education 2 year of study.

Educational course team:

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Work program has been considered and approved at the Department Meeting Pharmacology and Pharmacotherapy

Record from «23» august 2022 № 1

Head of the Department

  
(signature)

Sergiy SHTRYGOL'  
(first name LAST NAME)

Work program has been approved at the meeting of the Methodical Commission biomedical sciences

Record from «12» September 2022 № 1

Head of Specialized Committee



Prof. Nadia KONONENKO

## 1. The Description of the Educational component

**The language of the study:** English

**Course Status:** Compulsory

**Prerequisites for studying the educational component:** the study of the educational component "First Aid with Introductory Medical Practice" is based on the basic knowledge gained by students when studying such educational components as "Human anatomy", "Normal physiology", "Biology and Fundamentals of Genetics", "Microbiology with the Basics of Epidemiology".

**The subject of educational component study** "First Aid with Introductory Medical Practice" is the provision of the first premedical aid at various urgent states; care for patients; desmersion. Technique of various manipulations and procedures.

**Information volume of academic course.** 3 ECTS credit 90hours are assigned to the study of the educational component.

## 2. Objectives and tasks of the course

**The purpose of teaching the course** "First Aid with Introductory Medical Practice" is to teach higher education graduates to provide algorithms for providing the first pre-care assistance to victims and patients in the event of accidents and emergency situations, to acquaint students with higher education with the peculiarities of care for patients and the technique of performing various manipulations and procedures

The **main tasks** of the course "First Aid with Introductory Medical Practice" are the formation of knowledge, abilities and skills for the first premedical aid in the wounds and bleeding, burns and frostbites, dislocations and fractures of the bones, craniocerebral trauma, chest injuries, shock, terminal conditions, acute surgical infection, urgent conditions in patients with surgical and therapeutic diseases, poisoning, animal bites, sudden childbirth, acquaintance of higher education graduates with different techniques of execution s manipulations (raising enemas, cans, mustard plasters, bandages blending, etc.).

## 3. Competence and planned educational outcomes

Educational component "First Aid with Introductory Medical Practice" ensures the acquisition of applicants for higher education the following **competences**:

*integral:*

Ability to solve typical and complex specialized tasks and practical problems in professional pharmaceutical activity, applying the provisions, theories and methods of fundamental, chemical, technological, biomedical and socio-economic sciences; integrate knowledge and solve complex issues, formulate judgments for insufficient or limited information; to clearly and unambiguously communicate their conclusions and knowledge, reasonably justifying them, to the professional and non-professional audience.

• *general:*

GC 1. Ability to act socially responsible and civic conscious.

GC 2. Ability to apply knowledge in practical situations, make reasonable decisions.

GC 6. Knowledge and understanding of the subject area and understanding of professional activity.

GC 7. Ability to adapt and act in a new situation.

GC 11. Ability to assess and ensure the quality of performed work.

C 13. Ability to realize their rights and responsibilities as a member of society, to realize the values of civil (free democratic) society and the need for its sustainable development, the rule of law, human and civil rights and freedoms in Ukraine.

• *professional (special):*

PC 1. Ability to conduct sanitary and educational work among the population to prevent common diseases, prevent dangerous infectious, viral and parasitic diseases, as well as to facilitate the timely detection and maintenance of adherence to treatment of these diseases in accordance with their medical and biological characteristics and microbiological characteristics.

PC 3. Ability to provide the first aid to patients and victims in extreme situations and emergencies.

PC 20. Ability to develop methods for quality control of medications, including active pharmaceutical ingredients, medicinal plant raw materials and excipients using physical, chemical, physicochemical, biological, microbiological, pharmacotechnological and pharmacoorganoleptic control methods.

Integrative final program learning outcomes (PLO), the formation of which is facilitated by the educational component

PLO 3. To adhere to the norms of sanitary and hygienic regime and safety requirements in carrying out professional activities.

PLO 7. To perform professional activities using creative methods and approaches.

PLO 13. To carry out sanitary and educational work in professional activity in case of outbreaks of infectious, viral and parasitic diseases.

PLO 15. To provide home care to patients in emergencies and victims in extreme situations.

As a result of studying the course, the applicant for higher education will be able to *know:*

- causes of emergencies.
- main clinical manifestations of emergency conditions.
- the algorithm for providing premedical aid in emergency situations.

*be able to:*

- to identify signs of illnesses and pathological conditions requiring mandatory medical intervention, which are not subject to elimination at the stage of premeditated care in a pharmacy facility or production, and to take the necessary measures (anesthesia and imposition of jute, etc.) at the pre-hospital stage;

- to impose different types of bandages, aseptic bandage;
- temporarily stop the bleeding;
- carry transport immobilization using standard tires and improvised vehicles;
- to evaluate the functional state of the patient (to measure blood pressure, heart rate etc.);
- provide First Aid for burns and frostbite, injuries, angina, myocardial infarction, bronchial asthma attack, angioedema, hyper- and hypoglycemic coma, epilepsy, shock, poisoning, insect and animal bites, sudden births, etc., using simple manipulations (intramuscular, subcutaneous injections, bandages);

- provide First Aid when poisoning with drugs or chemical reagents and poisonous plants.

#### 4. The educational component structure

Names of	The amount of hours
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content modules and topics	full time study						part time study					
	the whole amount	including					the whole amo- unt	including				
		1	Sem.	p.l.	lab.	self- study		1	Sem	p.l.	lab.	self- study
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>	<i>12</i>	<i>13</i>
<b>MODULE 1. First Aid with Introductory Medical Practice</b>												
<b>Thematic module 1. "FIRS AID"</b>												
<b>Topic 1.</b> Understanding about the First Aid. Normative and legal ambush for First Aid. The algorithm of examination the injured person	6	-	-	3	-	3	-	-	-	-	-	-
<b>Topic 2.</b> General issues of resuscitation. Cardiopulmonary resuscitation.	6	-	-	3	-	3	-	-	-	-	-	-
<b>Topic 3.</b> Drowning. First Aid. Chocking, foreign objects in the nose, in the ears and eyes. First Aid.	6	-	-	3	-	3						
<b>Topic 4.</b> Bleeding. Methods of temporarily stopping bleeding. First Aid. Shock. First Aid.	7	1	-	3	-	3						
<b>Topic 5.</b> Open wounds. First Aid.	7	1	-	3	-	3						
<b>Topic 6.</b> Burns (chemical, electrical and other). First Aid. Cold injury, slighting and lightning stroke. First Aid.	6	-	-	3	-	3	-	-	-	-	-	-

<b>Topic 7.</b> Control Content Module № 1	6	-	-	3	-	3	-						
<b>The whole amount of hours for the Content Module 1</b>	44	2	-	21	-	21	-	-	-	-	-	-	-
<b>Thematic module 2. INTRODUCTORY MEDICAL PRACTICE</b>													
<b>Topic 8.</b> Asepsis, antiseptics. Bandaging.	6	-	-	3	-	3	-	-	-	-	-	-	-
<b>Topic 9.</b> Caring for the sick. Medical procedures.	6	-	-	3	-	3							
<b>Topic 10.</b> Trauma. Closed injury of soft tissue. Bones and joints injuries. First Aid.	7	1	-	3	-	3	-	-	-	-	-	-	-
<b>Topic 11.</b> Head, neck, and back injury. First Aid. Lung and respiratory problems. First Aid.	6	-	-	3	-	3							
<b>Topic 12.</b> First Aid for different digestive problems. First Aid for potential medical emergencies in therapeutic and neurologic diseases.	7	1	-	3	-	3	-	-	-	-	-	-	-
<b>Topic 13.</b> Acute poisoning and poisoning of drug. First Aid. Animal bites.	6	-	-	3	-	3	-	-	-	-	-	-	-

First Aid. Emergency childbirth. First Aid.												
<b>Topic 14.</b> Control Content Module № 2	6	-	-	3	-	3						
<b>The whole amount of hours for the thematic module 2</b>	44	2	-	21	-	21	-	-	-	-	-	-
<b>Semester credit of the module: "First Aid and Introductory Medical Practice"</b>	2	-	-	2	-	-	-	-	-	-	-	-
<b>Examination</b>	-	-	-	-	-	-	-	-	-	-	-	-
<i>The whole amount of hours for the course</i>	<b>90</b>	<b>4</b>	<b>-</b>	<b>44</b>	<b>-</b>	<b>42</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

## 5. Contents of the educational component

### *Content module 1. FIRST AID*

**Topic 1. Understanding about the First Aid. Normative and legal ambush for First Aid. The algorithm of examination the injured person.**

Definition. First Aid. Normative and legal ambush for First Aid. The algorithm of examination the injured person DRsCABCD.

**Topic 2. General issues of resuscitation. Cardiopulmonary resuscitation.** Concept of terminal states. Algorithm for carrying out resuscitation measures. Technique of cardiopulmonary resuscitation (ABCD algorithm).

**Topic 3. Drowning. First Aid. Chocking, foreign objects in the nose, in the ears and eyes. First Aid.** Drowning: definition, clinical signs, algorithm for the First Aid.

**Topic 4. Bleeding. Methods of temporarily stopping bleeding. First Aid. Shock. First Aid.** Definition of the concept of bleeding and blood loss. Classification of bleeding. General and local signs of bleeding. Methods of temporary stopping of bleeding. Algorithm of the First Aid with internal bleeding. The notion of shock. Classification of shocks. Clinical manifestations of various types of shock (hypovolemic, cardiogenic, anaphylactic, infectious-toxic shock). Algorithm for the provision of First Aid at various types of shock.

**Topic 5. Open wounds. First Aid.** The concept of wounds. Classification of wounds. Clinical manifestations of the wound. Algorithm for First Aid in the event of injuries.

**Topic 6. Burns (chemical, electrical and other). First Aid. Cold injury, slighting and lightning stroke. First Aid.** Definition of the concept of burns. Classification of burns. Clinical picture of thermal burns. Determination of burn area. Algorithm of the First Aid at thermal burns. Chemical burns. Clinical picture with burns of acids and alkalis. Algorithm of the First Aid for chemical burns. Freezing. Clinical manifestations. Algorithm of the First Aid at frostbite. Slighting and heat stroke.

Clinical manifestations. An algorithm of the First Aid at a slighting and heat stroke. Electric trauma. Clinical manifestations. Algorithm of the First Aid at electric trauma. Loss of lightning. Clinical manifestations. Algorithm of the First Aid with lightning stroke.  
Control Content Module № 1.

## Content module 2. ORIENTAL MEDICAL INTERSHIP

**Topic 8. Asepsis, antiseptics. Bandaging.** Acquaintance with the structure and organization of the health care institution. The concept of asepsis Prevention of airborne infection. Prevention of contact infection. Prevention of implantation infection. The concept of antiseptics. Types of antiseptics. Rules personal safety when providing traffic rules. General and special patient care. Eye care nasal passages, oral cavity. Care of the patient's skin, hair, and nails. Prevention of bedsores in seriously ill patients. Assessment of the functional state of the patient (measurement temperature, blood pressure, pulse and breathing rates).

**Topic 9. Caring for the sick. Medical procedures.** Hygienic measures in the care of seriously ill. Healing is seriously ill. Evaluation of the functional state of the patient. Methods of prophylaxis of bedsores. Enemas. Gastric lavage. Application of a hotplate, ice bubble, mustard. Catheterization of the bladder in men and women.

**Topic 10. Trauma. Closed injury of soft tissue. Bones and joints injuries. First Aid.** Definition of the concept of "trauma". Classification of injuries. Closed lesions of soft tissues: classification, clinical signs, algorithm of the First Aid with closed damages of soft tissues. Bone fractures: classification, clinical signs of open and closed fractures, algorithm of the First Aid. Dislocation of joints: classification, clinical signs, algorithm of provision of First Aid.

**Topic 11. Head, neck, and back injury. First Aid. Lung and respiratory problems. First Aid.** Craniocerebral trauma: clinical signs, algorithm of the First Aid. Chest damage: classification, clinical signs of a closed thoracic injury, penetrating chest trauma, algorithm of the First Aid with closed and penetrating chest trauma. Pneumothorax. Types of pneumothorax. Algorithm of the First Aid at pneumothorax. Fractures of ribs. Clinical signs. An algorithm of the First Aid at the break of the ribs.

**Topic 12. First Aid for different digestive problems. First Aid for potential medical emergencies in therapeutic and neurologic diseases.** Angina attack. Clinical signs. Algorithm of the First Aid for an attack of angina. Myocardial infarction. Clinical signs. Algorithm of the First Aid for myocardial infarction. Stroke Clinical signs. An algorithm of the First Aid during a stroke. Bronchial asthma. Clinical signs. Algorithm of the First Aid in bronchial asthma. Epilepsy. Clinical signs. An algorithm of the First Aid with epilepsy. Hyperglycemic and hypoglycemic coma. Clinical signs. Algorithm of the First Aid

**Topic 13. Acute poisoning and poisoning of drug. First Aid. Animal bites. First Aid. Emergency childbirth. First Aid.** Acute poisoning. Classification. General clinical manifestations. Poisoning with a substance that has got into the body through the gastrointestinal tract (alcohol, mushrooms, food toxins, narcotics, pesticides). Algorithm of the First Aid when poisoning an unknown substance that has got into an organism through the gastrointestinal tract. Poisoning with a substance that has got into the body through the respiratory tract (carbon monoxide). An algorithm of the First Aid when poisoned with carbon monoxide or another inhalation toxic substance. The peculiarities of the provision of traffic accidents when poisoned by an unknown substance that has got into the body through the eyes or skin.

Control Content module № 2.

## 6. Names of lectures

№	Name of topic	The amount of hours	
		full time study	part time study
1	<b>Topic 1.</b> Bleeding. Methods of temporarily stopping bleeding. First Aid.	1	-



2	<b>Topic 2.</b> Open wounds. First Aid.	1	-
3	<b>Topic 3.</b> Trauma. Closed injury of soft tissue. First Aid.	1	-
4	<b>Topic 4.</b> Potential medical emergencies in surgical diseases. First Aid.	1	-
<b>The whole amount of hours</b>		4	-

## 7. Topics of seminars

*(not predicted by the curriculum)*

## 8. Topics of practical lessons

№	Name of topic	The amount of hours	
		full time study	part time study
1	<b>Topic 1.</b> Understanding about the First Aid. Normative and legal ambush for First Aid. The algorithm of examination the injured person	3	-
2	<b>Topic 2.</b> General issues of resuscitation. Cardiopulmonary resuscitation.	3	-
3	<b>Topic 3.</b> Drowning. First Aid. Chocking, foreign objects in the nose, in the ears and eyes. First Aid.	3	-
4	<b>Topic 4.</b> Bleeding. Methods of temporarily stopping bleeding. First Aid. Shock. First Aid.	3	-
5	<b>Topic 5.</b> Open wounds. First Aid.	3	-
6	<b>Topic 6.</b> Burns (chemical, electrical and other). First Aid. Cold injury, slighting and lightning stroke. First Aid. Control thematic module № 1	3	-
7	<i>Control Content Module 1</i>	3	-
8	<b>Topic 7.</b> Asepsis, antiseptics. Bandaging.	3	-
9	<b>Topic 8.</b> Caring for the sick. Medical procedures	3	-
10	<b>Topic 9.</b> Trauma. Closed injury of soft tissue. Bones and joints injuries. First Aid. Head, neck, and back injury. First Aid. Lung and respiratory problems. First Aid.	3	-
11	<b>Topic 10.</b> First Aid for different digestive problems. First Aid for potential medical emergencies in therapeutic and neurologic diseases.	3	-
12	<b>Topic 11.</b> Acute poisoning and poisoning of drug. First Aid. Animal bites. First Aid. Emergency childbirth. First Aid. Control thematic module № 2	3	-
13	<i>Control Content Module 2</i>	3	-
14	<i>Semester credit of the module</i>	2	-
<b>The whole amount of hours</b>		44	-

## 9. Topics of laboratorial lessons

*(not predicted by the curriculum)*

## 10. Self-study work

№	Name of topic	The amount of hours	
		full time study	part time study
1	<b>Topic 1.</b> Understanding about the First Aid. Normative and legal	4	-

	ambush for First Aid. The algorithm of examination the injured person		
2	<b>Topic 2.</b> General issues of resuscitation. Cardiopulmonary resuscitation. Drowning. First Aid. Foreign objects the respiratory tract. First Aid.	5	-
3	<b>Topic 3.</b> Bleeding. Methods of temporarily stopping bleeding. First Aid. Shock. First Aid.	4	-
4	<b>Topic 4.</b> Open wounds. First Aid.	4	-
5	<b>Topic 5.</b> Burns (chemical, electrical and other). First Aid. Cold injury, slighting and lightning stroke. First Aid. Control content module № 1	4	-
6	<b>Topic 6.</b> Asepsis, antiseptics. Bandaging.	4	-
7	<b>Topic 7.</b> Caring for the sick. Medical procedures	4	-
8	<b>Topic 8.</b> Trauma. Closed injury of soft tissue. Bones and joints injuries. First Aid. Head, neck, and back injury. First Aid. Lung and respiratory problems. First Aid.	5	-
9	<b>Topic 9.</b> First Aid for different digestive problems. First Aid for potential medical emergencies in therapeutic and neurologic diseases.	4	-
10	<b>Topic 10.</b> Acute poisoning and poisoning of drug. First Aid. Animal bites. First Aid. Emergency childbirth. First Aid. Control content module № 2	4	-
<b>The whole amount of hours</b>		42	-

## 11. Tasks for self-study work

1. The algorithm of examination the injured person.
  2. Initial First Aid for the presence of foreign objects in the respiratory tract, depending on the state of consciousness of the victim.
  3. Drowning. Algorithm for the providing First Aid at drowning.
  4. Algorithm for the providing First Aid at penetrating and non-penetrating gunshot wounds.
  5. Features of transportation of victims with various localisations of wounds.
  6. Algorithm for the providing First Aid at lightning strike.
  7. Algorithm for the providing First Aid in the general cooling.
  8. Splints. Standard and improvised splints. Rules of transport immobilization at fractures of limb bones.
  9. Damage to the spine. Algorithm for the providing First Aid at the damage of the spine. Rules for transporting victims with damage to the spine.
  10. Clinical signs of abscess, mastitis. Algorithm for the providing First Aid.
  11. Painted hernia. Clinical signs. Algorithm for the providing First Aid.
  12. Hypertensive crisis. Clinical signs. Algorithm for the providing First Aid in hypertensive crisis.
  13. Hyperglycemic coma. Clinical signs. Algorithm for the providing First Aid with hyperglycemic coma.
  14. Hypoglycemic coma. Clinical signs. Algorithm for the providing First Aid with hypoglycemic coma.
  15. Features of baby care. Caring for a breeder.
  16. Methods of detoxification in poisoning.
  17. Bites of animals. Algorithm for the providing First Aid at animal bites.
- The control of independent work of higher education graduates is carried out during practical classes in the form of test tasks and situational tasks and control content module.

## 12. Individual tasks

(not predicted by the curriculum)

## 13. Criteria and evaluation order of educational outcomes

Current control includes the verification of theoretical knowledge, the implementation of situational tasks and tests of the success of training.

№ Practice lessons	Mark	Scores	Evaluation criteria
<b>Module 1</b>			
<b>Thematic module 1</b>			
<b>Practice lessons № 1-6</b>	excellent	4,5-5	Tests – 4 points Other types of work (situational problem solving, practical skills - 1 point)
	good/very good	4-3,5	
	satisfactorily	3	
	unsatisfactorily	0-2,5	
<b>Content module 1 assimilation</b>	excellent	18-20	Situational problem solving -8 points (3 point for one task, practical skills - 2 points) Tests - 12 points (by 0.5 points for 1 test)
	good/very good	15-17,5	
	satisfactorily	12-14,5	
	unsatisfactorily	0-11,5	
<b>Total for CM 1</b>		<b>30-50</b>	Current points + points for Content module 1 assimilation
<b>Thematic module 2</b>			
<b>Practice lessons № 8-13</b>	excellent	4.5-5	Tests – 4 points Other types of work (problem solving, practical skills - 1 point)
	good/very good	4-3,5	
	satisfactorily	3	
	unsatisfactorily	0-2,5	
<b>Final Control of TM 2</b>	excellent	18-20	Situational problem solving -8 points (3 point for one task, practical skills - 2 points) Tests - 12 points (by 0.5 points for 1 test)
	good/very good	15-17,5	
	satisfactorily	12-14,5	
	unsatisfactorily	0-11,5	
<b>Total for TM 2</b>		<b>30-50</b>	Current points + Content module 2 assimilation
<b>All for Module "First Aid with Introductory Medical Practice"</b>		<b>60-100</b>	Total for Content module 1 assimilation 1+ Total for TM 2 Content module 2 assimilation +Final

### EVALUATION MODULE FOR THE EDUCATIONAL COMPONENT

National scale	Scale ECTS	Rating score, points
<b>5 – excellent</b>	A – excellent	90-100
<b>4 – good</b>	B – very good	82-89

	C – good	74-81
<b>3 – satisfactorily</b>	D – satisfactorily	64-73
	E – enough (meets minimum criteria)	60-63
<b>2 – unsatisfactorily</b>	FX – unsatisfactorily	35 59
<b>not allowed</b>	F – unsatisfactorily (need more wor )	1-34

**Assessment «Excellent»** put on practical training provided deliberate, correct and complete learning. The answers to theoretical questions sure reasoned and logical. The student is able to independently apply the knowledge and skill in the performance of situational tasks and provided the correct answer to all tests successful learning.

**Assessment «Good»** assigned conscious and complete answer to the theoretical question, but with some inaccuracies which student corrects itself. The answer is quite justified, minor violations of the sequence. Student independently, but with some help of a teacher is able to apply their knowledge and skills when performing tasks and situational gave the correct answer at least 75% benchmark the success of training.

**Assessment «Satisfactorily»** corrects with the help of a teacher. There are some violations of logic and consistency. The student is able to apply their own knowledge and situational tasks to perform on the instructions of the teacher and gave the correct answer at least 60% benchmark the success of training.

**Assessment «Unsatisfactorily»** assigned response with large errors and gaps where there are only fragments of knowledge. Lack of autonomy to use the acquired knowledge and situational performance targets and if given the right answer less than 60% benchmark the success of training.

#### **14. Forms of progress and final tests of academic achievements**

Current control is carried out on the basis of test control, oral questioning, the implementation of situational problems for each topic, and the content modules educational components, which include test and situational tasks for all topics of the content module. Final module control is carried out using computer testing. Semester control form is credit.

#### **15. Teaching course materials**

1. Work curriculum of educational component;
2. Calendar and thematic plans of lectures, practical classes and independent work of students;
3. Synopsis and multimedia presentations of lectures on educational component;
4. List of theoretical questions and tasks for current and final module control;
5. Methodological instructions on educational component for the teacher;
6. Methodical recommendations for practical classes for students;
7. Methodological recommendations for auditorium and non-auditing independent work of higher education applicants;
8. Methodical recommendations for preparation for the final module control in educational component;
9. Collection of test tasks for practical classes;
10. Situational problems for practical classes;
11. List of practical skills;
12. Methodical recommendations on techniques for the implementation of practical skills;
13. Educational equipment and technical means of training (phantom-models, visual materials, medical products);
14. Videophiles recommended by the Ministry of Health of Ukraine.

## 16. Reading suggestions

### The main reading suggestions

1. Lectures of pharmacotherapy with pharmacokinetics: Tutorial for foreign students of higher education staff / I.V. Kiryev, N.V. Zhabotynska, O.A. Riabova at all. – Kharkiv : NUPh : 2019. – 140 p.

### Supplementary reading suggestions

1. Beau Griffin Survival Medicine & First Aid: The Leading Prepper's Guide to Survive Medical Emergencies in Tough Survival Situations, 2020, P.118
2. Tao Le, Vikas Bhushan First Aid for the USMLE Step 3, Fifth Edition 5th Edition, McGraw Hill / Medical; 5th edition, 2018, P. 520
3. Grant S. Lipman The Scouting Guide to Wilderness First Aid: An Officially-Licensed Book of the Boy Scouts of America: More than 200 Essential Skills for Medical ... in Remote Environments (A BSA Scouting Guide), 2019, P. 192
4. Clement I. Textbook on first aid & emergency nursing, 2019, P. 780
5. Alton L. Thygerson, Steven M. Thygerson, Advanced First Aid, CPR, and AED, Eighth Edition, 2022, P. 453.

### Electronic resources

1. НФаУ. Тести on-line. Підготовка к незалежному тестированию КРОК [Electronic resource] / University of Pharmacy. – Access mode : <http://tests.nuph.edu.ua/>
2. The site of the Pharmacology and pharmacotherapy department [Electronic resource] / National University of Pharmacy. – Access mode : <https://pharmacolpharmacother.nuph.edu.ua/en/>
3. NPhaU Library: [Electronic resource] / National University of Pharmacy. – Access mode : <http://lib.nuph.edu.ua/?lng=ua>
4. First aid [Electronic resource] / Mayo Foundation for Medical Education and Research. – Режим доступу : <http://www.mayoclinic.org/first-aid>