

MINISTRY OF HEALTH OF UKRAINE

DANIEL HALYTSKY LVIV NATIONAL MEDICAL UNIVERSITY

(name of the central education management body, owner)

I APPROVE
The first vice-rector
on scientific and pedagogical work
prof. M.R. Grzegotsky

1. 09. 2021 .

EMERGENCY CARE IN PHARMACIES (discipline of choice)

(name of academic discipline)

WORKING PROGRAM ACADEMIC DISCIPLINE

training of specialists of the second (master's) level of higher education

(name of higher education level)

areas of knowledge 22 “Health ”

(code and name of the field of knowledge)

specialty 226 “Pharmacy ”

(code and name of the specialty)

specialization (s) _____

(name of specialization, if any)

DEVELOPED AND IMPLEMENTED BY: Danylo Halytskyi Lviv National Medical University
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Discussed and approved at the methodological meeting of the Department of General Surgery

Minutes № 10 from “31” 09 2021

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Approved by the profile methodical commission on surgical disciplines

Protocol № 11 from “14” 08 2021

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INTRODUCTION

THE PROGRAM OF STUDY OF THE DISCIPLINE "EMERGENCY CARE IN PHARMACIES" (DISCIPLINE OF CHOICE) IS MADE

in accordance with the Standard of Higher Education of Ukraine (hereinafter - the Standard) of the second (master's) level

(name of higher education level)

field of knowledge 22 "Health"

(code and name of the field of knowledge)

specialty 226 "Pharmacy"

(code and name of the specialty)

specialization (s) _____

(code and name of specialization)

educational program of Master of Pharmacy

(name of educational program)

Description of the discipline (abstract). A pharmacy is a health care institution that operates with the permission and under the control of state bodies, the main task of which is to provide the population, other health care institutions, enterprises, institutions and organizations with medicines and medical devices. One of the most important functions of a pharmacy, as a health care institution, is to provide first aid to the population; dissemination of sanitary and hygienic knowledge among the population and carrying out sanitary and educational work; pharmaceutical care; conducting information work among medical and pharmaceutical specialists.

The Law of Ukraine "On Emergency Medical Care" as amended on 09.12.2015 defines first aid as a set of urgent actions and organizational measures aimed at saving and preserving a person's life in an emergency and minimizing the effects of such a condition on his health. carried out at the scene by persons who, in accordance with their official duties, must have basic practical skills in rescuing and saving the life of a person who is in an emergency.

In accordance with the first part of Article 12 of the above-mentioned law, the list of persons obliged to provide home medical care to a person in an emergency includes: rescuers, state firefighters, police, pharmaceutical workers, conductors of passenger cars, flight attendants and other persons who do not have medical education, but in their official capacity must have practical skills in providing home care.

The draft curriculum of the discipline "First aid with introductory medical practice" is made in accordance with the requirements of the Constitution of Ukraine, Laws of Ukraine "On Education", "On Higher Education", "On scientific and scientific-technical activities", "On information"; regulations of the Cabinet of Ministers of Ukraine; orders of the Ministry of Education and Science of the Ministry of Health of Ukraine and other current legislation governing the organization of the educational process and training of specialists in higher medical (pharmaceutical)

educational institutions of the Ministry of Health of Ukraine, in particular, Letter of the State Institution №23-01-9 / 87; Letter of the Ministry of Health of Ukraine dated July 26, 2016 №23-01-9 / 268; Order of the Ministry of Education and Science of Ukraine dated 16.10.2009, №943 “On introduction of the European credit transfer system in higher educational institutions of Ukraine”; Resolution of the Cabinet of Ministers of Ukraine of April 29, 2015 №266 “On approval of the list of branches of knowledge and specialties in which higher education students are trained”.

The subject of study of the discipline is the organization of first aid in emergencies in pharmacies.

Interdisciplinary connections: normal anatomy, normal physiology, histology, pathological anatomy, pathological physiology, pharmacology

1. The purpose and objectives of the discipline

1.1. The purpose of teaching the discipline "Emergency care in pharmacies (discipline of choice)" is to master the basic theoretical principles and master the practical skills of organizing and providing emergency medical care to victims in pharmacies.

1.2. The main objectives of the discipline "Emergency care in pharmacies (discipline of choice)" is to acquire knowledge, skills and abilities to provide emergency medical care to victims in pharmacies.

1.3 Competences and learning outcomes, the formation of which is facilitated by the discipline (relationship with the normative content of training of higher education, formulated in terms of learning outcomes in the Standard).

According to the requirements of the standard, the discipline provides acquisition by students competencies:

-integral: the ability to solve complex problems and practical problems in the field of professional activity 22 "Health", which involves the application of certain theoretical knowledge, skills, practical skills and methods of the relevant professional direction;

-general: the ability to apply knowledge in real situations; adaptation and implementation of the required scope of actions in new situations, activities in autonomous and command modes, evaluation and quality assurance of work performed; identification and solution of problems; making informed decisions; activities in accordance with the basic safe and ethical principles (motives).

-special (professional, subject): providing assistance in various types of injuries, emergencies and accidents in pharmacies.

Detailing of competencies according to NCR descriptors in the form of “Competence matrix».

Competence matrix

№	Competence	Knowledge	Skills	Communication	Autonomy and responsibility
Integral competence		ability to solve complex specialized problems and practical problems in the field of professional activity 22 "Health care", which involves the application of certain theoretical knowledge, practical skills and methods of relevant professional orientation			
General competencies					
ZK1	Ability to apply knowledge in practical situations		+	+	+
ZK2	Ability to conduct research at the appropriate level		+	+	+
ZK3	Ability to adapt and act in a new situation		+	+	+
ZK4	Ability to work both independently and in a team		+	+	+
ZK5	Ability to evaluate and ensure the quality of work performed		+	+	+
ZK6	Ability to communicate in the state language both orally and in writing		+	+	+

ZK7	Ability to search, process and analyze information from various sources	+	+	+	+
ZK8	Ability to identify, pose and solve problems		+	+	+
ZK9	Ability to make informed decisions		+	+	+
ZK10	Basic ideas about the basics of medical knowledge that contribute to the development of general culture and socialization of the individual, propensity to ethical values, knowledge of national history, understanding of the causal links of society and the ability to use them in professional and social activities	+	+	+	+
ZK11	Basic knowledge of basic sciences, to the extent necessary for the development of general professional disciplines	+	+	+	+
ZK12	The ability to be critical and self-critical		+	+	+
ZK13	Ability to act on the basis of ethical considerations (motives)		+	+	+
ZK14	Safe activities skills	+	+	+	+
Special (professional) competencies					
CK.1.	Providing emergency care for various types of injuries	+	+	+	+
CK.2.	Providing emergency care in case of emergency	+	+	+	+
CK.3.	Providing emergency care in case of accidents	+	+	+	+
CK.4.	The main methods of transfer and transportation of victims	+	+	+	+
CK.5.	First aid for respiratory disorders	+	+	+	+
CK.6.	Providing emergency care for cardiac arrest	+	+	+	+
CK.7.	Providing emergency care for mechanical asphyxia	+	+	+	+
CK.8.	Providing emergency care in case of fainting	+	+	+	+
CK.9.	Providing emergency care for various types of shock	+	+	+	+

Learning outcomes:

Integrative final program learning outcomes, the formation of which is facilitated by the discipline: to apply knowledge in practical situations; work effectively both autonomously and as part of a team; to be responsible for the work performed in order to achieve the set goal; use information and communication technologies to solve various research and professional problems; have the skills of emergency care for various types of injuries, emergencies and accidents and be able to implement them in pharmacies.

Learning outcomes for the discipline: mastering the knowledge, skills and abilities to provide emergency care in pharmacies.

2. Information volumetric discipline

60 hours and 2 ECTS credits are allocated for the study of the academic discipline.

If the program is structured in the module: -

3. The structure of the discipline

Names of content modules and topics	Number of hours											
	Full-time						correspondence form					
	total	including					total	including				
		ll	pp	lab	ind.	s. w.		ll	pp	lab	ind	s. w.
1	2	3	4	5	6	7	8	9	10	11	12	13
Topic 1. The organization of emergency care in pharmacies. Laying a first aid kit (medicines and other means) to provide pre-medical care in a pharmacy. Characteristics of drugs for emergency care. Indications for use, dose selection and method of administration. Expected effect.												
Topic 2. Foreign bodies in the larynx, trachea, bronchi, as one of the causes of airway obstruction due to aspiration. Assessing the degree of respiratory failure and determining the scope of emergency measures in the pharmacy.												
Topic 3. Acute allergic reactions of the immediate type: angioneurotic edema, urticaria. Clinical manifestations. Principles of providing emergency medical care in a pharmacy.												
Topic 4. Hypertension. Clinical symptoms. Hypertensive crisis as an emergency. Bronchial asthma. Pulmonary edema. Principles of providing care in a pharmacy.												
Topic 5. Features of the clinic and emergency care in a pharmacy for certain poisonings: alcohol and its surrogates, barbiturates, narcotic analgesics, organophosphorus compounds, carbon monoxide, poisonous fungi and plants.												
Total hours	60	10	10			40						

4. Topics of lectures

№	Name topics	Number
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з/п		hours
1	Modern principles of emergency care in pharmacies	2
2	Terminal states: evaluation algorithm and procedure for providing care in pharmacies.	2
2	Organization of emergency care in pharmacies for acute therapeutic diseases.	2
4	Help with various types of injuries in pharmacies	2
5	Organization of care for CNS disorders in pharmacies	2

5. Topics of seminars

№ з/п	Name topics	Number hours
1	Organization of emergency care in pharmacies. Laying a first aid kit (medicines and other means) to provide pre-medical care in a pharmacy. Characteristics of drugs for emergency care. Indications for use, dose selection and method of administration. Expected effect.	2
2	Foreign bodies in the larynx, trachea, bronchi, as one of the causes of airway obstruction due to aspiration. Assessing the degree of respiratory failure and determining the scope of emergency measures in the pharmacy.	2
3	Acute allergic reactions of immediate type: angioneurotic edema, urticaria. Clinical manifestations. Principles of providing emergency medical care in a pharmacy.	2
4	Hypertensive disease. Clinical symptoms. Hypertensive crisis as an emergency. Bronchial asthma. Pulmonary edema. Principles of providing care in a pharmacy.	2
5	Features of the clinic and emergency care in a pharmacy for certain poisonings: alcohol and its surrogates, barbiturates, narcotic analgesics, organophosphorus compounds, carbon monoxide, poisonous mushrooms and plants.	2

6. Topics of practical classes

№ з/п	Name topics	Number hours
1		
2		

7. Теми лабораторних занять

№ з/п	Name topics	Number hours
1		
2		

8. Independent work

№ з/п	Name topics	Number hours
1	Organization of the activity of the emergency medical care service of Ukraine (regulatory framework). Purpose, ethical, deontological and legal aspects of emergency care for victims in a pharmacy. Inspection of the scene, ensuring the personal safety of pharmacy staff, safety of witnesses of the event and the victim, approaching the victim (patient).	10
2	Initial examination. Tasks of the initial inspection. Technology of carrying out at the conscious and unconscious patient. Providing medical care during the initial examination. Determining further tactics at the scene.	10
3	Convulsive syndrome in epilepsy: large convulsive and small epileptic seizures. Features of the course of a major seizure: prodrome, tonic and clonic phases, non-seizure period. Status epilepticus. Emergency care in a pharmacy.	10

4	Defeat by combat poisons. Characteristics of the main toxic substances. Physiological action, antidotes and methods of protection.	10
	Total	40

9. Individual tasks

The study of the discipline involves the implementation of individual tasks in the form of preparation of reviews of scientific literature and abstracts with in-depth study of relevant topics of choice, the creation of visual aids, presentations at seminars, individual research. Creating slides according to the thematic plan and independently chosen topics within the discipline.

10. Tasks for independent work

Preparation and defense of abstracts (presentations) on the proposed topics:

- 1) Overdose of drugs as an acute clinical situation.
- 2) Hyperthermic syndrome in children
- 3) Principles of providing emergency care to children
- 4) Hyperglycemic coma, hypoglycemic coma
- 5) Paroxysmal tachycardia
- 6) Acute mental disorders.

11. Teaching methods

Visual: When studying the discipline "Emergency care in pharmacies (discipline of choice)" uses a set of methods: - methods of verbal transmission and auditory perception of educational information (lectures, conversations, stories, explanations, discussions), methods of visual transmission and visual perception of educational information (display and demonstration, slides, videos, study of literary and other sources of educational information, the use of visual aids), methods of transmitting educational information through practical, labor actions and tactile perception (training tasks on mannequins, training and creative exercises, comp. user modeling, examination of thematic patients).

Practical methods: solving clinical situational problems and tests, mastering the elements of medical examination equipment on models, mastering the skills of emergency care techniques.

12. Methods of control. Current control is carried out during training sessions and aims to check the assimilation of students' learning material (it is necessary to describe the forms of current control during training sessions on a 4-point (national) scale). Forms of assessment of current educational activities should be standardized and include control of theoretical and practical training. Evaluation of current educational activities. During the assessment of mastering each topic for the current educational activity of the student grades are given on a 4-point (national). This takes into account all types of work provided by the discipline program. The student must receive a grade from each topic for further conversion of grades into points on a multi-point (200-point) scale.

13. Form of final control of learning success: credit. This is a form of final control, which consists in assessing the student's mastery of educational material solely on the basis of the results of his performance of certain types of work in practical classes. Credit for disciplines is made after the end of its study.

14. Scheme of accrual and distribution of points received by students

For disciplines whose form of final control is credit:

The maximum number of points that a student can score for the current academic activity in the study of the discipline is 200 points. The minimum number of points that a student must score for the current academic activity to enroll in the discipline is 120 points.

The calculation of the number of points is based on the grades obtained by the student on a 4-point (national) scale during the study of the discipline, by calculating the arithmetic mean (CA), rounded to two decimal places. The obtained value is converted into points on a multi-point scale as follows: $x = CA \times 200 / 5$

For convenience, the table of recalculation on a 200-point scale is given:

Recalculation of the average grade for current activities in a multi-point scale for disciplines that end with a credit

4-point scale	200-point scale
5	200
4.97	199
4.95	198
4.92	197
4.9	196
4.87	195
4.85	194
4.82	193
4.8	192
4.77	191
4.75	190
4.72	189
4.7	188
4.67	187
4.65	186
4.62	185
4.6	184
4.57	183
4.52	181
4.5	180
4.47	179
4.45	178
4.42	177
4.4	176
4.37	175
4.35	174
4.32	173
4.3	172
4.27	171
4.24	170
4.22	169
4.19	168
4.17	167
4.14	166
4.12	165
4.09	164
4.07	163
4.04	162
4.02	161
3.99	160
3.97	159
3.94	158
3.92	157
3.89	156
3.87	155
3.84	154
3.82	153
3.79	152
3.77	151

3.74	150
3.72	149
3.7	148
3.67	147
3.65	146
3.62	145
3.57	143
3.55	142
3.52	141
3.5	140
3.47	139
3.45	138
3.42	137
3.4	136
3.37	135
3.35	134
3.32	133
3.3	132
3.27	131
3.25	130
3.22	129
3.2	128
3.17	127
3.15	126
3.12	125
3.1	124
3.07	123
3.02	121
3	120
Less than 3	Not enough

Points from the discipline are independently converted into both the ECTS scale and the 4-point (national) scale. ECTS scale scores are not converted to a 4-point scale and vice versa.

The scores of students studying in one specialty, taking into account the number of scores scored in the discipline are ranked on the ECTS scale as follows:

ECTS assessment	Statistical indicator
A	The best 10% of students
B	The next 25% of students
C	The next 30% of students
D	The next 25% of students
E	The last 10% of students

Ranking with grades "A", "B", "C", "D", "E" is conducted for students of this course who study in one specialty and have successfully completed the study of the discipline. Students who receive FX, F ("2") grades are not included in the list of ranked students. Students with an FX grade automatically receive an "E" score after retaking.

Discipline scores for students who have successfully completed the program are converted into a traditional 4-point scale according to the absolute criteria, which are given in the table below.:

Points in the discipline	Score on a 4-point scale
From 170 to 200 points	5
From 140 to 169 points	4
From 139 points to the minimum number of points that a student must score	3
Below the minimum number of points that a student must score	2

The ECTS score is not converted to the traditional scale, as the ECTS scale and the four-point scale are independent. The objectivity of the assessment of students' learning activities is checked by statistical methods (correlation coefficient between ECTS assessment and assessment on a national scale).

15. Methodical support

Teaching the discipline at lectures is provided by methodical developments, visual aids (presentations, educational films), information resources of departments.

Teaching the discipline in practical classes is provided by methodological developments, topics of independent and individual tasks, visual aids (presentations, educational films, mannequins and other tools for practicing resuscitation skills), information resources of departments, algorithms for practical skills and structured control algorithms.

Independent and individual work in the study of the discipline is provided by methodological developments for independent work of students. 16. Рекомендована література

1. Basic

- Emergency medical care: a textbook / [M. I. Shved, AA Hudyma, SM Geryak and others]; for order. MI Swede. - Ternopil: TSMU, 2015. - 420 p.
- First aid: a textbook / ed. VP Андрющенко. Yu.F. Kushta, D.V. Andryushchenko - Lviv: LNMU. - 2011. - 351 p.
- Emergency medical care (acute heart condition) / G.G. Roschin, OM Parkhomenko, VO Krylyuk et al. : ed. G.G. Roshchina. - Kyiv: Interservice, 2011. - 159 p.
- Strong ID First aid for emergencies: a textbook / I.D. Дужий, O.B. Tailor; Sumy State University. - Sumy: Sumy State University, 2014. - 212 p. : ill., table.
- Emergency medical care: pre-hospital stage, manipulation algorithms (basic level). / G.G. Roschin, AA Gudima, V.Yu. Kuzmin and others. - K., 2012. - 84 c.
- Medicine of urgent conditions: ambulance and emergency medical care / I.S. Zozulya, A.V. Vershigora, VI Bobrova and others; for order. IS Zozuli. - K. : ВСВ "Медицина", 2012. - 728 c.
- Tarasyuk VS, Matviychuk MV Palamar MV, Polyarush VV, Korolyova ND, Podolyan VM Malik SL,

Krivetska NV First medical (emergency) care with elements of tactical medicine at the pre-hospital stage in emergency situations. - K .: Medicine, 2015..

8. Algorithms for providing emergency care in critical conditions / Ed. II Titov. - Vinnytsia: Nova Kniga, 2012. - 344 p.

Допоміжна

1. Donald C. Correll, MD Facep. Hypothermia practice Guid // The physician assistant practice Guide. For Emergency Departments urgent care centers, and family practices. A cuta care Horizons. Jackson, TN.2012.
2. Marx, John, Ron Walls, and Robert Hockberger. Rosen's emergency medicine-concepts and clinical practice. Elsevier Health Sciences, 2013.
3. Skone, Richard, et al., eds. Managing the Critically Ill Child: A Guide for Anaesthetists and Emergency Physicians. Cambridge University Press, 2013.
4. Schneider, Andreas, Erik Popp, and Bernd W. Böttiger. "Cardiopulmonary Resuscitation." Surgical Intensive Care Medicine. Springer International Publishing, 2016. 153-166.

17. Information resources

1. Official Internet Representation of the President of Ukraine <http://www.president.gov.ua/>.
2. The Verkhovna Rada of Ukraine <http://www.rada.kiev.ua>.
3. The Cabinet of Ministers of Ukraine <http://www.kmu.gov.ua/>.
4. Ministry of Education and Science, Youth and Sports of Ukraine <http://www.mon.gov.ua>, www.osvita.com.
5. Ministry of Ecology and Natural Resources of Ukraine <http://www.menr.gov.ua/>.
6. Ministry of Emergencies and Protection of the Population from the Consequences of the Chernobyl Accident <http://www.mns.gov.ua/>.
7. Ministry of Health <http://www.moz.gov.ua/en/portal/>
8. National Security and Defense Council of Ukraine <http://www.rainbow.gov.ua/>.
9. Permanent Mission of Ukraine to the United Nations <http://www.uamission.org/>.
10. Information and search legal system "Regulations of Ukraine (NAU)". <http://www.nau.ua>
11. American Heart Association <https://www.onlineaha.org/>
12. British Heart Foundation [https://www.bhf.org.uk /](https://www.bhf.org.uk/)