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# LEGAL BASIS OF PROFESSIONALS' COMPETENCE FORMATION OF EMERGENCY AND MEDICAL SPECIALISTS IN THE FIRST AID APPROACHES

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#### **ABSTRACT**

**Introduction:** The purpose of educational process in higher educational establishments is to train specialist who has fully mastered the professional competencies for performing daily activities and for action in non-standard situations, which can occur during fulfilling obligations.

**The aim:** Compare the formation of professional competence and practical skills as important part of increasing effectiveness of specialists training; check the correspondence with current legal acts, which regulate the first aid training.

Materials and methods: The bibliography method, info-analytic method, the comparative method, and logical method were used in our research.

**Conclusion:** Improvement of complex first aid curriculum for professionals of emergency service is determined the increasing of the level of psychological readiness for performing professional duties.



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#### INTRODUCTION

Nowadays, it is a great value to apply the acquired knowledge, even in peace or war time. The purpose of educational process in higher educational establishments is to train specialist who has fully mastered the professional competencies for performing daily activities and for action in non-standard situations, which can occur during fulfilling obligations. The purpose of the educational process of the higher educational institutions is to train a specialist who has fully mastered the professional competencies necessary for him both for daily activities and for action in non-standard situations that may arise during the performance of his duties. The specialists of emergency approach (militaries, lifeguards, firefighters, policemen, and paramedics) have to acquire the knowledge of first aid, because they work with hazard to life, injuries, and wounds. There is a necessity to apply first aid for injured people [1]. Paramedics, unlike others specialists, have to know the peculiarities of first aid application in different systems of reaction and combat tasks performance according to current standards (curriculum): PHTLS, TCCC-MP, TCCC-AC, TECC, LEFR-TCC, etc. [2].

The combination of general professional and special competencies forms an integral competence, aimed at further specialist development by improving his qualification level in the system of continuous education. In the first aid field it is becoming up-to-date, because the response protocols and supplying are continually changing.

The current approaches do not consider the peculiarities of personnel actions in every of these systems. We noticed, that current response protocols [3] are combined or even substituted by the lifeguard courses, it is inadmissible for militaries, policemen, firefighters, lifeguards, and for others emergency reaction specialists. There are some differences in first aid application in peace and war time, it is depend on the situation, which happened. For instance, the execution of the cardiopulmonary resuscitation (CPR) in the red zone is dangerous and inefficient, meanwhile, in peace time it is obligatory [4].

Based on the current researches, the statistically significant increase in survival rates among emergency medical care patients is achieved if patients get the first aid no later than 4 minutes after emergency situation occurred [5]. Such early access is possible if witnesses of the event give effective first aid and take measures of basic life support. However, these people cannot substitute medical professionals, but the can help to support life before paramedics come.

#### THE AIM

The analyzes of educational discipline curriculum "Psychology of emergency activity (including tactical medicine)", higher educational standards, and curriculum in chapter "Military-oriented modules" for training reserve

officers of medical service, particularly module "First aid in emergency situation" which were designed by Military-medical Academy of Ukraine. Compare the formation of professional competence and practical skills as important part of increasing effectiveness of specialists training; check the correspondence with current legal acts, which regulate the first aid training.

#### MATERIALS AND METHODS

The object of our research is analyzes of some Ukrainian legal documents, which regulate the training of first aid specialists and designing of curriculum of educational discipline "Psychology of emergency activity (including tactical medicine)", which is used for training policemen, law enforcement officials, firefighters; and curriculum in chapter "Military-oriented modules" for training reserve officers of medical service. The comparison of these programs with similar foreign trainings, such as: PHTLS, TCCC-MP, TCCC-AC, TECC, LEFR-TCC, and detection of its advantages and disadvantages.

The bibliography method, info-analytic method, the comparative method, and logical method were used in our research.

#### **REVIEW AND DISCUSSION**

First aid is the notion which was updated by the decree of Cabinet of Ministers No. 1115 from 21th of November 2012, which stipulates the application of first aid by the person, who was first near injured, and who does not have medical degree, but has necessary training [6]. Other words, it is self-care and mutual aid with using modern technics and algorithms, aimed at surviving life of injured person. This term is not perfect. Despite of the absence of medical decree of person who gives first aid, his or her actions are aimed at treatment the injured person, and cannot contradict the medical care.

Verkhovna Rada (Parliament of Ukraine) adopted some decrees and orders, which guaranty the right for life and getting medical care for every Ukrainian citizen. Firstly, the Article No. 27 of Ukrainian Constitution declares an indefeasible right to life for every person and citizen of Ukraine. The Article No. 49 of Ukrainian Constitution guaranties the rights for health and medical care. The Decree of Verkhovna Rada (Parliament of Ukraine) about the Recommendation of parliamentary hearing "About Military-medical Doctrine of Ukraine" from 25th of November 2015 [7], the Order No. 275/600 of Ministry of Interior of Ukraine and Ministry of Health of Ukraine from 03<sup>rd</sup> of April 2018 "About the adoption of Instruction for organizing interoperability with The State Emergency Service and the Ministry of health of Ukraine in case of emergency situations" [8].

During first years of Ukrainian independence the Law of Ukraine No. 2801-XII "Legislation basis of Ukraine about the health care" from 19<sup>th</sup> of November 1992 which consolidated legal, organizational, economics and social

basis of health care of Ukraine; and provisions of medical care for citizens, protection of their health, activity of medical professionals in medical institutions and out of them, moreover, it was given the definition of term "first aid". During next few years our legislation was improved, new decrees and orders which aimed to ensure necessary health and medical care for citizens were adopted, such as: the Order of Ministry of Interior of Ukraine No. 754 from 6th of September 2017 "About the adoption of Instruction of course of action in case of revealing radioactive, chemical and nuclear materials or getting information about the rules violation or illegal usage" which is aimed to provide first aid in case of emergency for those people, who suffered from influence of dangerous materials [9]. The Order of Ministry of Interior No. 50 from 26th of January 2016 "About the adoption of Regulation for organizing employee service training in National Police of Ukraine", which is based on police training methods of providing first aid in case of emergency [10].

The training of personnel, who does not have professional medical decree is regulated by the Law "About emergence first aid"; the Order of Ministry of Health of Ukraine from 29th of March 2017 No. 346 "About the training improvement of providing first aid for those, who do not have professional medical education"; the Order of Ministry of Health of Ukraine from 23<sup>rd</sup> of August 2018 "About the test formation and administration of people, who obliged to provide hospital and first aid"; the Order of Ministry of Health of Ukraine from 16th of April 2014 No. 398 "About the adoption the orders of providing first aid for people in exigent conditions", which was registered in the Ministry of Justice 7th of July 2014 No. 750/25527; the Order of Ministry of Health of Ukraine from 15th of January 2014 "About adoption and implementation of medical and technical standardization documents of emergency medical aid"; the Regulation of Ministry of Health of Ukraine adopted by the Cabinet of Ministers of Ukraine from 25th of March 2015 No. 267; the Order of Ministry of Health of Ukraine from 2nd of March 2009 No. 132 "About training of non-professional non-medical personnel for application first aid", which was registered in the Ministry of Justice 21st of May 2009 No. 445/16461, for improvement training of non-professional non-medical personnel, who must apply first aid according to their area of responsibility; and for training programs adaptation to international standards of providing emergency first aid.

According to the Regulation of the Cabinet of Ministers of Ukraine from 21st of November 2012 No. 1115 art. 9 and the Order of Ministry of Health of Ukraine from 2nd of March 2009 No. 132 "About training of non-professional non-medical personnel for application first aid" [11], it was suggested to review the list of personnel, who must apply first aid according to their area of responsibility on the scene. The military training program was developed according to the Order of the Ministry of Health of Ukraine No. 322/631/709 from 29th of June 2016 "About the adoption of the Regulations of organization citizen training according to the training program for reserve officers of

medical service". This program was aimed to organize applying of medical and first aid [12].

The activity with high constant risk is always tied with high level of emotional and stressful overpressure. It can become a hard test for young professionals. The person who achieved necessary professional competences during training, could not make decisions and act in extreme conditions [13]. That is why, it is important to conduct workshops during the training process and evaluate not only objective indicators, but also subjective, such as motivation, psychological readiness, and individual qualities, which are characterized particular person [14].

The first aid is studied by emergency reaction professionals, militaries and medics specialists according to the analyses of international experience. It was revealed, that PHTLS (Prehospital Trauma Life Support) [15] is obligatory for all professionals. The Tactical Emergency Casualty Care course (TECC) [16] is outlined as recommendations. It is the basis for rescue civil service. Meanwhile, the Tactical Combat Casualty Care (TCCC) [17, 18] is used for training professionals in case of military conflict.

The PHTLS, TCCC, TECC courses are studied on the basis of international organizations. Its certificates are valid in the USA, European Union and Ukraine: American College of Surgeons (ACS), National Registry of Emergency Medical Technicians (NREMT), American Heart Association (AHA), National Association of Emergency Medical Technicians (NAEMT), National Resuscitation Council (ERC), International Trauma Life Support (ITLS), Army Battlefield Interface Concept (ABIC) [19, 20, 21, 22, 23, 24, 25, 26].

These organizations are non-profit entities; and they trained emergence reaction personnel for application medical aid in case of urgent situation. Depending on the training approach of the courses not only professionals with basic medical decree (paramedics, medical technicians, first aid instructors), but also professionals who must apply first aid according to their area of responsibility on the scene (firefighters, lifeguards, militaries, policemen and special forces) can learn these courses [27].

The first aiders and paramedics learned the course of Tactical Emergency Casualty Care (TECC) [28]. The aim of this course is to teach professionals with basic medical decree how behave in emergence situations in peacetime, and teach new current techniques and algorithms of first aid application. According to this program main tasks are lifesaving, avoidance of additional casualties and continue the execution of combat tasks. The length of this course is 16 hours; it is aimed at reducing mortality rate in case of emergency. The training process consists of lections, practical classes on special training stations, evaluation and tactics tasks. The practical skills include: bleeding control, surgical control of breathing passages, narrow lungs decompression, the algorithm of first aid application on the scene; medical pediatric treatment, and the medical evacuation methods [29]. The evaluation test is after finishing this course, which consists of theoretical part and demonstration of practical skills.

Medic professional achieves such competence as:

- the course of action of first aid application in the direct threat area;
- the methods of first aid application in the indirect threat area:
- the first aid application technics during medical evacuation or in evacuation zone.

The length of the PHTLS [30] course is 16 hours, which includes lections and obligatory practical training on the waxworks under instructors' guidance. The purpose of the Course is teaching paramedics, nurses and doctors of the first aid course of action application. The practical part includes such skills as: primary and secondary patient examining; patient examining according CABCDE, MARCH, AMPLE [31] algorithms; application of tourniquet; Israel bandage; tight dressing; rules of using field dressing Combat Gauze; immobilization of hack-barrows and improvised means; immobilization with SAM and Kendrick splints; immobilization with cervical collar; lungs decompression; occlusal plaster; application of inferior laryngotomy; cardiac compressions; oropharyngeal and nasopharyngeal airways; using pulsimeter; provision of intravenous and inner-boned access; using of mobile ultrasonography; defining of hypothermia and shock indicators. The evaluation tests (introductory and final) are conducted after finishing the course. They consist of tactical task with practical skills demonstration on the waxworks.

As result, professional must get such competences as:

- correct determination of trauma mechanism;
- methods of action coordination on the scene;
- technics of bleeding control;
- bleeding control during medical evacuation in a hospital;
- methods of ensuring clear breathing passages;
- methods of casualty evacuation;
- understanding of the trauma kinematics and recognition of life-threatening injuries;
- technics of injured immobilization;
- prioritization in extreme situation.

The LEFR-TCC [32] course was used for personnel training without special medical decree. If these public order forces know the first aid basis, they will help to save life of injured. This course was designed for personnel without basic medical decree. This course is oriented on training rapid reaction teams and emergency services of basic medical measures, which can help to save life of injured, before professional medical treatment. This course includes PHTLS and TCCC recommendations; and its lengthis 8 hours (lections and practice) [33]. After mastering this course, person will get such skills as; application of tourniquet on arm or leg; using of field dressing; digital vessel occlusion; using of field dressing Combat Gauze; setting of oropharyngeal and nasopharyngeal airways; lungs decompression; occlusal plaster; transport immobilization; defining of shock indicators. The introductory tests are conducted before starting this course; and final tests are conducted after finishing the course.

It is necessary to solve tactical scenario and demonstrate practical skills. After finishing the course, the trained personnel achieve such competences as:

- identification and ways of bleeding control (application of tight bandage, field dressing, tourniquet);
- bleeding control during casualty evacuation to the hospital;
- methods of airways patency by means of some equipment (oropharyngeal and nasopharyngeal airways; lungs decompression; Ambu-bag);
- abilities of shock symptoms indication of casualty.

The Tactical Combat Casualty Care - All Combatants (TCCC-AC) [34] course is aimed to train non-medical personnel and accidental participants of combat situation, hired lifeguards, who occur on the high-risk situation, soldiers and navies. The course length is one day (8 hours); and it consists of lections, practice (using of practical stations under instructors' guidance), tactical scenarios and evaluation control. During this course the professionals will master such skills as: moving of under-jaw; setting of oropharyngeal and nasopharyngeal airways; casualty evacuation in safety place (casualty transportation with strap, dragging by one person, dragging by two people, carrying by two people, carrying on the back); bleeding control with chemicals use (Celox Gauze, ChitoGauze, Combat Gauze), tourniquet, Israel bandage, finding of pulse on radial artery [35].

The TCCC-AC course evaluation control is tests and solving of tactical scenario. After course finishing, the competences which personnel achieve:

- technics of bleeding control;
- technics of airways patency control; method of pin decompression;
- shock symptoms indication;
- using of oral and intramuscular medicine;
- hypothermia prevention;
- first aid course of action in eye penetration trauma, fractures and burns;
- observation of basic vital functions indicators (cardiac activity and respiration).

The Tactical Combat Casualty Care for Medical Personnel (TCCC-MP) [36, 37] course is learned by personnel with basic medical decree (doctors, nurses and paramedics), who may occur on the battlefield or in battle zone. The length of the course is 2 days (16 hours) with lections, practice on the special stations on waxworks. There are main practical skills, which professional have to master: tourniquet application; external bleeding control; field dressing application; wound tamponade; bleeding control with chemical use (haemostatic gauze bandage, applicator); setting of oropharyngeal and nasopharyngeal airways; inferior laryngotomy providence; lungs decompression; provision of intravenous and inner-boned access; methods of infusion using with tranexone and intravenous ketamine infusion; casualty evacuation in safety place (casualty transportation with strap, dragging by one person, dragging by two people, carrying by two people, carrying on the back) [38]. The evaluation control consists of two stages (introductory and final) and solving practical scenario.

Medic professional will achieve such competences as:

 technics of bleeding control (application of tourniquet), activity in CUF zone;

- technics of airways patency control (inferior laryngotomy), breath control (pin decopmression), activity in TFC zone;
- provision of intravenous access, infusion therapy, shock diagnosis and treatment; fractures and burns treatment; analgesia principles in battle zone;
- cerebral injury diagnostics, hypothermia prevention;
- mastering of 9-lines information transmitting system in casualty evacuation (TACEVAC); medical sorting;
- rules of enemy treatment.

The modern international first aid protocols, such as TCCC, Basic Life Support (BLS) [39]; western experience of Denver Department of Health of First Aid concerning are the basis of medical professionals training. The TECC, TCCC, PHTLS [40, 41] recommendations are basic for curriculum chapter "Military orientation modules" for training reserve officers of medical service. The modules "The basic organization of medical provision of civil population and militaries" and "The first aid in extreme situations" include the peculiarities of training professionals of such spheres as: medicine, dentistry, medical psychology, pharmacy.

The basis of the program is measures and urgent actions aimed at saving and preserving the lives of the victim, carried out at the scene by persons with basic medical education. The curriculum of training discipline "Psychology of emergency activity (including tactical medicine)" for cadets of the National Academy of National Guard of Ukraine (NANGU) has a special approach which is based on psychology training of militaries and their adaptation to extreme life conditions. The first aid course is studied less, than the basics of psychology and psychological support of the soldier, however, it does not meet the requirements of LEFR-TCC – program of special forces training [42], which is closed to standard TCCC-AC program.

The are some objective characteristics of curriculums for their comparison:

- 1. Length of training;
- 2. Purpose of training;
- 3. Scope of practical skills;
- 4. Main competences;
- 5. Evaluation form (including the acquisition of practical skills)

The length of the course for medical students is 90 hours, including practice – 50 hours; and self-studying – 40 hours. In the National Academy of National Guard of Ukraine, the length of the course is 90 hours, practice training – 32 hours; collective training – 12 hours; lections – 10 hours; self-studying – 36 hours. The ratio of the number of hours for classes and individual work is 54/36 hours. The purpose of the most practical classes and workshops is aimed at better learning of practical skills in application first aid and its course of action.

Through the medics training, the practical classes are conducted in training form. The training form is more useful in acquiring practical skills, than workshops; because training form is focused on working out basic manipulations that will be necessary both in professional activity and in everyday

life. The main purpose of the medical students studying is to achieve competences according to Standard of doctors training and first aid application in emergency situations in peacetime and combat environment. Firstly, it includes some common competences such as: ability to use knowledge in practical situation; ability to choice communication strategy; ability to team-working; ability to interpersonal cooperation; the ability to abstract thinking, analysis and synthesis; and the ability to learn. Secondly, there are some special (professional) competences of medics' students such as: ability to perform evacuation; ability to define tactics of application emergency medical treatment; skills of application emergency medical treatment; skills of performing medical manipulations.

The purpose of NANGU cadets studying includes organization and first aid application to militaries; theoretical and practical training of servicemen in the field of extreme and crisis psychology.

The cadets of NANGU have to master such competences as: the methods of first aid application during execution of combat tasks; the ways of casualty evacuation; knowing main types of extreme situations; knowing human mental condition, behavior and actions in extreme situations; knowing main crowds types; social-psychological principles and mechanisms of human determination; ability of timely first aid application with injuries, poisoning, pneumocardial disorder; individual or team casualty evacuation; providence of emergency psychological support for militaries, who were effected of strong psycho-traumatic shock during execution of combat tasks; be able to give first aid on the battle field and in shelter area; master the methods of extreme psychological and negative emotions regulation; stress-relief methods; visual psychognosis of people during combat operations.

Both curriculums include requirement of mastering basic courses of first aid application and medical professional training peculiarities.

The future medical professionals have to have certain scope of practical skills in first aid application:

- the peculiarities of the scene evaluation, course of action of first aid application

in the shelling and shelter sectors, primarily examining, examining according to CABCDE algorithm, the definition of the level of consciousness on the APVU scale;

- indications and techniques of temporary bleeding stopping, imposing a pressed bandage (Israeli band), application of tourniquet, indications and rules of chemicals using to stop the bleeding;
- technics of airway patency (throwing the head; moving the lower jaw; inserting the nasopharyngeal and oral air ducts); artificial ventilation techniques (mouth to mouth, mouth to nose, mouth to face mask, AMBU bag), moving the injured person to stable lateral position;
- transport immobilization by means of scheduled and adapted means, technique of applying bandages for wounds of the skull, eye, ears, lower jaw;
- first aid application to burns, frostbite, hypothermia, electric shock (lightning);

- first aid application to numbness, coma of unknown etiology, convulsions, heart pain (angina pectoris, heart attack), stroke, abdominal pain, poisoning with an unknown substance or unknown gas;
- water assistance: recognition of the drowned man, approaching, transport to the shore;
- first aid in potent poisoning substance deprivation; first aid in combat and non-combat conditions with radiative action;
- algorithms of medical sorting; fill the MIST-report; methods of casualty transportation from shelter zone to casualty assembly point (by one person, two people with using improvised means); rules of evacuation request; loading and unloading of casualties in various evacuation vehicles; vital signs control during casualty transportation in combat and non-combat conditions;
- mechanisms of coping with stress for medics professionals; technologies of prevention post-traumatic disorder; main principles of first aid application in battle in combat fatigue and combat stress.

The cadets of NANGU achieve such practical skills as: casualty transportation; self-aid and mutual-aid in red and yellow zones; first aid with convulsion and unconsciousness; bleeding control with tourniquet; wound tamponade; secondary casualty examining; conducting cardiopulmonary resuscitation; application of splints; application of extreme psychological regulation; application of auto training; knowing the pain control methods; knowing methods of fear control; procedure of strong-willed mobilization; provide psychological first aid in raving, delusion, nervous tremor, crying, hyperkinesis, stupor, aggression, hysterics, fear.

Medical students are studying according to ECTS; they have to get minimum act score; the evaluation is based on scoring system (from 120 to 200 grade). The exam is form of training evaluation. It is standardized; and consists of theoretical and practical training evaluation. Special focus is on students' practical skills mastering; there are three running tests, which take place on practical lesson. The number of running tests is three, and maximum score is 6 grades. The cadets of NANGU are evaluated by the national evaluation scale and ECTS (A, B, C, D, E, FX, F). The final evaluation test is exam with mark. There are no additional evaluation tests of practical skills according to the curriculum.

The evaluation training systems have great differences. The practical part is main for medical and non-medical professionals according to PHTLS, TCCC-MP, TCCC-AC, TECC, LEFR-TCC training programs [43].

Comparing PHTLS, TCCC-MP, TCCC-AC, TECC, LE-FR-TCC training programs with curriculums "Psychology of emergency activity (including tactical medicine)", "First aid in emergency situation" according to objective indicators (table I), is obvious that the competences formation depends on the legth of the course, personnel, and scope of practical skills. The common and special competences are achieved by training according to PHTLS, TCCC-MP, TECC, "Psychology of emergency activity (including tac-

**Table 1.** The comparison of foreign and domestic first aid curriculums

Title of program	Length of the course (hours)	Personnel	Scope	PS Evaluation	Achieved competences
PHTLS	16	Medical professional	full	+	Common and special
TCCC-MP	16	Medical professional	full	+	Common and special
TCCC-AC	8	Non-medical professional	shorten	+	Common
TECC	16	Medical professional	full	+	Common and special
LEFR-TCC	8	Non-medical professional	shorten	+	Common
PES	90	Non-medical professional	shorten	Not specified	Common and special
FAinES	90	Medical professional	full	+	Common and special

Note: PES - "Psychology of emergency activity (including tactical medicine)", FAinES — "First aid in emergency situation", PS — practical skills.

tical medicine)", "First aid in emergency situation"; which form the integrative competence. Only common competences are achieved according to TCCC-AC i LEFR-TCC programs.

The shooting training is a part of tactical medicine according to the NANGU cadets training plan. The important stage of personnel training is: cadets or students competences mastering; psychological readiness of performing combat tasks; motivation for further development and self-education [44]. All-important competences should be laid down during practical classes and seminars, where the teacher is interested and encouraged the student to study the discipline.

The competence formation process consists of four stages [45], so called "rule of 4 needs": need to know, need to manage, need to will and need to act. For instance, third stage is assumed, that professional will make a decision if he/she will give first aid for injured or will stay away, for avoiding deterioration. According to M.I. Pyrohov: "Any school is glorified not by the number, but by the honor of its students" – this rule is regards to psychological readiness of professional to perform combat tasks, which includes such factors as:

- 1. Motivational motives, which stipulate occupational choice;
- 2. Cognitive theoretical knowledge;
- 3. Operational availability of necessary professional skills;
- 4. Personal complex of individual and psychological qualities.

Motivational and personal factors have to be developed at the beginning of students studying or during training process; cognitive and operational factors have to be developed through educational process [46].

Thus, summing-up, the educational process have to consists of some stages for better professional formation and mastering practical skills, which are the priority of first aid training [47]:

- 1st stage theoretical training;
- 2<sup>nd</sup> stage teacher's skill demonstration;
- 3<sup>rd</sup> stage student considers courses of action and perform them on waxworks; and after mistakes discussion;
- 4<sup>th</sup> stage students hone skills without prompts and comments, which helps enhance the capabilities.

Furthermore, it is possible to define 5<sup>th</sup> stage, when first aid training takes place in real time; but it would be difficult without additional inventory and logistics management (mannequin, moulage, tourniquet, cervical collar, etc.).

The stage-by-stage approach of studying is modern teaching and educational complex, which will improve of mastering practical skills and motivate for further self-education through advanced training. A case study is a good instrument of mastering first aid courses of action on the lessons (case study is non-game simulated method of situational analysis, based on the studying of solving particular tasks (cases) and real events) [48].

As an example of this method is problem solving, when person was hit by car and she/he is unconscious. There are only improvised means in rucksack and pockets. Under these conditions, it is necessary to give proper first aid for saving casualty and gain time, until ambulance arrives.

The training process on case method base consists of some stages. The individual training is on the first stage; team training (3-4 members) and course of action adjustment is on the second stage; on third stage is group discussion with teachers [49].

Moreover, the timely and consistent casualty transportation from battlefield and others emergency field is an important part of the first aid training process [50]. Thus, special focus must be on the casualty sorting, preparations for transportation, medical treatment during evacuation of NANGU cadets and medical professionals training.

## **CONCLUSIONS**

Nowadays, there is the legal base in Ukraine, which is background for personnel training, who does not have medical decree, but obliged to provide first aid according to the area of responsibility. The special focus must be on the Order of Ministry of Health of Ukraine from 16<sup>th</sup> of April 2014 No. 398 "About the adoption the orders of providing first aid for people in exigent conditions", which was registered in the Ministry of Justice 7<sup>th</sup> of July 2014 No. 750/25527, which defines first aid courses of action in different situations; defines the algorithms of first aid application including curriculums and courses, which were mentioned above.

The military and medical training problems remain relevant on all stages of educational process (as well medical and non-medical personnel). It is necessary to focus on using international curriculums of training, which will provide proper level of knowledge and skills in real emergence situations and combat operations. Thus, in accordance with the requirements of the curriculum, the use of different teaching methods will contribute to a better understanding of the practical skills of the first aid which includes:

Firstly, after analyzing current first aid curriculums of different countries and comparing them with domestic ones, it is necessary to summarize, that length of training program, the training form, involved personnel, the scope of practical skills are influenced on achieving common and special competences. Different approaches of results evaluation and forms of intermediate tests of practical skills influence on competence formation of emergency and medical professionals.

Secondly, the improvement of complex first aid curriculum for professionals of emergency service including some peculiarities is determined the increasing of the level of psychological readiness for performing professional duties. The application of modern training forms and methods with frequent demonstration of practical skills is allowed to transform knowledge into skills of first aid application.

Thirdly, the using of case methods helps to practice courses of action which occur in emergency situation, and teach team-work and cooperation with strangers in extreme conditions. The using of modern educational first aid technologies increases the level of mastering practical skills, which are necessary for saving life of casualty.

Forth, safety issue of applying first aid is one of priorities in first aid training for all professionals. Particularly, it is necessary to mention, that shooting training is important not only for professionals, who plan to become reserve officers.

Suggested approaches are required further research and discussion, they can be the subjects of special study in other our articles.

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#### **Authors' contributions:**

According to the order of the Authorship.

## **Conflict of interest:**

The Authors declare no conflict of interest.

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