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IMPROVING OF THE ACTIVITIES OF EMERGENCY MEDICAL CARE SERVICES: PREPARATION OF PROPOSALS FOR THE DEVELOPMENT AND AMENDMENTS TO REGULATORY ACTS

Abstract. The main aim of this stage is preparation of proposals on the development of regulatory act aimed to the improvement of the activities of the emergency medical services.

The main goals of the stage are:

- study and analysis of the most actual issues existing in the system of the emergency medical services;
- preparation of the prudent materials;
- preparation of the proposals for the concept (explanatory note) on the most actual issues of the system of the emergency medical system in the Republic of the Uzbekistan.

During the process, there were analysis made of the existing situation and the identification of the issues hindering the further development and improvement of the system of medical emergency, including the emergency in the republic. There were conducted conversations with specialists, consideration of available documents regulating the procedure for the provision of emergency medical services and materials received from the coordinator.

Keywords: Regulatory legal act, emergency medical care, analysis of situation.

Introduction

According to the Global Reference List of 100 Key Health Indicators for 2015 (Global Reference List of 100 Core Health Indicators, 2015), among indicators of healthcare sys-

tems, the availability and willingness to provide medical services, the use of the service, and access to health care are distinguished. According to the Guidelines for National Policies and Strategies [1] prepared by the World Health

Organization, the quality of medical care is determined by taking into account how the health care system functions as a whole, how involved all stakeholders are and the most significant factors affecting the quality of medical services. It should be noted that this guidance has been developed as a practical approach for the development of policies and strategies to improve the quality of medical care. The World Health Organization in the concept of quality includes, first of all, the quality of implementation of the professional functions, minimization of the risk of complications during medical interventions, patient satisfaction with medical care.

The Constitution of the Republic of Uzbekistan in art. 40 establishes the right of everyone to receive skilled medical care. Presidential Decree No. UP-5590 dated 12/07/2018 identifies, inter alia, increasing the efficiency, quality and accessibility of medical care, introducing quality management systems for medical services and improving legislation in the field of healthcare through its unification and the adoption of laws of direct action, as the most important areas of reforming the health care system in the Republic of Uzbekistan. In other words, providing the population with affordable and high-quality medical care is one of the main tasks of modern healthcare in the Republic of Uzbekistan.

The aim of this stage of work is to develop proposals for improving the medical emergency system in Uzbekistan based on the analysis of the current situation of practical issues and identifying the most problematic areas requiring legal regulation, in accordance with the main directions identified in the documents of the World Health Organization.

1. Overview of approaches for determining the quality of emergency medical care: main areas of activity (Decree of the President of the Republic of Uzbekistan No. PP-3494 from January 25, 2018 “On measures to accelerated improvement of the medical emergency system”)

Relationships that have the character of ubiquitous and/or the most common, requiring stabilization or streamlining, are subject to legal regulation. State intervention in the system of public relations has its scopes and limits. In case of the health care system, most of the relationships are somehow connected with bodies and organizations, the competence of which includes the provision of medical care. In addition, such relations are associated with the protection of the human rights to life, freedom from violence, and the healthcare. The provision of medical care, including medical emergency, is a relationship that must be regulated by the state in such a way that the quality of the relationship between the parties is satisfied.

There are four main criteria for the quality of medical care:

- effective and timely assistance;
- efficient use of resources;
- meeting the needs of patients;
- effectiveness of treatment [2].

This requirement may, fully, be applicable to medical emergency, as a type of medical care.

Quality management should include the following necessary components:

- assessment and control of quality;
- improvement of quality;
- quality assurance.

Quality assurance, in its turn, includes three important criteria:

- continuity;
- a variety of methods for measuring and improving quality;

– the distinction between internal and external approaches to quality assessment.

One of the essential elements for achievement of the efficiency is the mechanism of sociological research (surveys, questionnaires, and establishing feedbacks between the patient and the doctor, the doctor and the state body, and the patient and state body). Sociological studies conducted on a systematic basis will indicate a level of satisfaction of:

- patients with the quality of the services provided (received);
- medical personnel, terms of provided services;
- governmental bodies (organizations) implementing state policies in the field of health-care, increasing the rating of Uzbekistan at the international level.

Sociological studies may also provide the improvement of the system of public health management.

In ensuring the accessibility and quality of medical care, an extremely important role is assigned to the emergency medical service (EMS). However, the fulfillment of tasks is impossible without measures aimed at improving the operation of the entire system for providing this type of medical care. The solution to this problem is determined as one of the areas of the Strategy of Action including five priority areas of the development of the Republic of Uzbekistan in 2017–2021, approved by Decree of the President of the Republic of Uzbekistan No. UP-4947 of 02/07/2017. Moreover, the Strategy as a document contains the main directions of performance and a model of long-term and planned for implementation activities. The tasks of reforming the emergency medical care system in Uzbekistan at this stage are to proceed to specific sub-

stantiated measures to implement and introduce amendments to the system, by preparing regulatory legal acts containing procedural rules, as well as direct action norms. Expressed in the language of law, methods of legal regulation should contain preemptory, directive norms, obliging to fulfill certain requirements.

In addition to sociological research, the collection and processing of statistical data will help to form an idea of the current condition of the emergency medical system including the number of emergency calls for a certain period of time in relation to the number of vehicles per site, the number of vehicles on average per number of people, including children (of a certain category and age), the elderly, people with disabilities, people with disabilities, people with chronic diseases, educational level of medical personnel (higher or specialized secondary), age, etc. The use and application of information technologies in emergency medical care will help obtaining and processing statistical data by developing and implementing information systems such as an automated management system, an accounting and reporting system, electronic filling out forms, and automation of the dispatching service, which includes processing and accounting of incoming applications.

The search for IT solutions, the elimination of excessive paperwork, the integration of all elements should become a priority during the period of digitalization and implementation of e-government systems.

The main directions of the reform of the emergency medical care system, in accordance with Presidential Decree No. PP-3494 dated January 25, 2018, are:

- integration with primary health care facilities;

- strengthening the material and technical base, equipping and retrofitting with modern medical equipment;
- improving the system of training and professional development of medical personnel.

Each direction is discussed in more detail below.

1.1 Integration with primary health care facilities

To improve and increase the efficiency of the response, the creation of unified dispatch centers throughout the republic is envisaged.

Based on the requirements of the unified standards for the provision of emergency medical care, the approval and implementation of clinical protocols, that is, regulatory documents defining the requirements for the implementation of medical care for a patient with a certain disease, with a specific syndrome or in a specific clinical situation in a medical organization, has been established. *The purpose of developing a clinical protocol* is regulatory support of the quality management system of medical care in a medical organization.

It is also planned to conduct master classes in the regions for branches and departments of the Republican Scientific Center for Emergency Medical care, and medical and consultative care for patients.

Giving a certain legal status (legal force) to clinical protocols, bringing their contents to medical personnel of emergency medical services, ensuring their widespread use requires serious informational and educational work with medical personnel on an ongoing basis. Similar to the standardization system, not limited to refresher training courses, but with the help of information systems, information should be collected and processed to further identify problematic issues.

A clinical protocol is being developed to address the following challenges:

- the selection of optimal technologies for prevention, diagnosis, treatment and rehabilitation for a particular patient;
- protection of the rights of the patient and the doctor in resolving disputed and conflict issues;
- carrying the examination and assessment of the quality of medical care for patients with a certain disease, syndrome or in a specific clinical situation, and planning measures of improvement;
- planning the volumes of medical care;
- calculation of the necessary costs of providing medical care;
- substantiation of the program of state guarantees for the provision of medical care to the population.

Prioritization of these tasks and legal consolidation in regulatory acts will allow:

- minimize costs (financial, time, human resources) for false calls;
- dispatching service to immediately decide on the advisability of leaving the ambulance team. At the same time, dispatch protocols should be developed depending on the implemented information system, where it should be fixed which cases are considered urgent and/or whether it is necessary to transport the patient (injured);
- reduce the incidence of attacks on emergency medical personnel.

1.2 Strengthening the material and technical base

It was determined that medical institutions need phased equipment (retrofitting) of specialized vehicles with sets of medical equipment. The equipment of emergency medical care teams with modern radio communications

and navigation systems is, among other things, a requirement for digital transformation carried out in Uzbekistan. It is envisaged to provide visiting ambulance teams with medicines, medical devices and supplies in accordance with the approved standards.

The main purpose of strengthening the material and technical base is a quick and effective implementation of scientific ideas into specific technical and technological innovations. From which it follows that strengthening the material and technical base involves not only the actual acquisition of equipment and/or means and materials, but also the determination of real requests (requirements) in them, as well as the willingness of the personnel to use them (equipment, materials, means) and apply to practice. Equipment and facilities are designed to reduce labor intensity and intensify processes, for which the readiness and ability of medical personnel to use them must be ensured.

The issues of material and technical equipment include the composition of first-aid kits (automotive, at enterprises, in public places / crowds, in transport). Here, strict rules and requirements should be developed both for revising the composition with a certain periodicity, and the content corresponding to international experience, necessary to save a person's life.

1.3 Improving the system of training and professional development of medical personnel

It was established the creation of a specialized council for awarding scientific degrees to scientific and pedagogical personnel of the emergency medical care system, the organization of retraining and advanced training of doctors and nurses in leading foreign clinics, the establishment of cooperation with foreign specialized organizations and the conduct of joint researches in the

field of emergency medical care. This direction is a long-term perspective, the results of which can be obtained no earlier than 3–5 years. It is closely related to the preparation and conduct of educational work with public officials in the field of healthcare, as well as (even more extensively) with certain categories of persons obliged to provide emergency medical care, for example, rescue workers from emergency services, fire-fighters, police (art 16 of the Law of the Republic of Uzbekistan “On Internal Affairs Bodies”), pharmaceutical workers, guides of passenger cars, flight attendants, other persons without medical education, but according to their official duties obliged to possess practical skills of rendering premedical care. In addition, a certain educative, educational work, work on raising the legal awareness on healthcare issues should be carried out with the population on a regular systemic basis.

The Ministry of Healthcare of the Republic of Uzbekistan should approve training programs for the training of such persons. Unified and standardized teaching methods will serve to form a unified system of skills, as well as reach more people in case of necessity.

The Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 319 dated December 18, 2009 approved the Regulation on the procedure for advanced training and retraining of medical workers. The terms of advanced training and retraining of medical workers, including the heads of medical institutions, as well as the list of specialties in which they can be retrained depending on their specialty, are determined by the Ministry of Healthcare of the Republic of Uzbekistan. The main objectives of periodic advanced trainings and retraining of medical workers are:

- ensuring the connection between science and practice, promoting the implementation of research results in the field of advanced medical technologies;

- introduction of foreign experience in the field of modern diagnostic and pharmaceutical technologies.

At the same time, it is possible to revise the provisions of present regulatory legal act for the subject of the possibility of training individuals who do not have a medical education.

2. Some issues of increasing the effectiveness and efficiency of emergency medical services

2.1 Standardization of medical care

Commenting on the Resolution of the President of the Republic of Uzbekistan No. PP-3494, we established that the issues of the quality of the assistance provided have serious causes and consequences. When it comes to standardization, it should be noted that healthcare systems around the world face the following problems:

- meeting the growing demand for medical services, including emergency medical services;
- increasing productivity;
- reducing costs;
- improving results [3].

The standardization of indicators of health care services contributes to a new understanding of the comparability and processing of medical data, which in turn will serve to determine forecasts and improve specific areas of medical services.

Standardization involves certain activities aimed at achieving the optimal degree of streamlining, development and establishment of certain provisions, requirements for universal, repeated application (use) in that sphere or in those relations where there is a need to solve certain problems, such as improving quality or efficiency.

In relation to emergency medical care, the main goal of standardization will be maintenance of the life and health of the population. The establishment of any common requirements is possible through the preparation of drafts of legal acts, or the development and adoption of standards.

One of the components of the project “Improving the emergency medical care service” is the creation of an integrated medical information system in the emergency medical care service of the Republic of Uzbekistan. Here, it should be noted that one of the reasons for carrying medical standardization is the high degree of introduction of new technologies. Effective government decision-making can also be significantly improved by processing ICT data. Most of the digital data that currently exists in the healthcare system, in particular in the emergency medical services system, is currently not being used “for its intended purpose” to obtain high-quality data and make forecasts. Most of this data is not connected to a single integrated system, which makes this data either inaccessible to those who can process it, or just unprocessable, due to their fragmentation. For example, processing data of the work of pre-hospital and hospital units of emergency medical services, data of emergency medical stations and emergency medical services, a unified database of patients with the appropriate diseases categorization, a unified database of clinical protocols, population data by regions, gender information, age, characteristic diseases of the regions, integration of emergency medical services and primary care, where they can and should apply preventive prophylactic measures to preserve public health, as well as to improve it. All this kind of data currently does not allow their full analysis, not only due to the issues of implementation and application of ICT, but also

the lack of legal methods and mechanisms for their collection and processing, without violating legislation, for example, about personal data.

It is believed that standardization, along with personalization and use of digital data, may be more effective for the healthcare system [4].

The standardization of the system of emergency medical care is based on the principles of relevance, uniformity, consensus, verifiability and appropriateness.

The principle of relevance implies the establishment of full compliance of the legislation of the Republic of Uzbekistan with international requirements, as well as modern discoveries and scientific achievements in the field of medicine. For example, Article 4 of the Law of the Republic of Uzbekistan “On science and scientific activity” distinguishes, among the main areas of the sphere of science and scientific activity, “ensuring close integration of science, education and production ...”, as well as the development of international cooperation.

The principle of uniformity consists in the development of a single procedure for the establishment, coordination and application of normative documents on standardization. Here, the key role is assigned to the authorized body for healthcare in the republic – the Ministry of Healthcare of the Republic of Uzbekistan.

The principle of consensus implies that all participants in standardization are obliged to interact with each other and carry out activities in a uniform manner, to act according to the rules of the content of regulatory documents. In other words, everyone is obliged to act according to the requirements within their authority. To this end, the state has two key levers of influence and interaction with the population: sanctioning/punishment for violations (by setting special rules in the

codes of administrative, criminal responsibility) and propaganda (wide and constant work with both the population and medical workers, work with non-governmental non-profit organizations, civil society institutions).

When implementing the principle of appropriateness, the rules for applying only those requirements that are practical and scientific are implemented. It is rather difficult to determine the criteria of appropriateness here, for example, in the work of a dispatcher service employee who can determine the priority and importance of an incoming call only if there is a clear, detailed instruction (clinical protocol, dispatch protocol with an algorithm of actions in certain cases).

The construction of a standardization system in medicine occurs through the distribution of powers at various levels of government departments. This is necessary to comply with regulatory requirements and approvals.

2.2 Issues of improving the work of dispatch centers

Dispatching service is a centralized form of operational management based on the use of technical means of communication, the collection of information, its processing and implementation of operational control.

In accordance with the Decree of the President of the Republic of Uzbekistan No. PP-3494 dated January 25, 2018, the Program of measures to accelerate the improvement of the emergency medical care system for 2018 provided for the creation of the unified dispatch Call-centers with uninterrupted functioning of a unified round-the-clock emergency call telephone number at the base of station of Tashkent emergency medical care, the Republican Scientific Center for Emergency Medical care and emergency medical stations of regional branches on the basis of the

Tashkent emergency medical station and at the station of emergency medical care of regional branches of RSC EMC, throughout the republic.

Decree of the President of the Republic of Uzbekistan No. PP-3245 “On Measures for Further Improvement of the Project Management System in the Field of Information and Communication Technologies” dated August 29, 2017 stipulated that “the introduction of information systems and networks of interagency electronic interaction and exchange of information between government bodies and other organizations” are one of the priority tasks. In the same decision, the Step-by-Step Program for the creation of the “Safe City” hardware-software complex, clause 14 provides for the phased integration of the information systems of the Safe City complex, where the Ministry of Health is included in the list of performers.

Based on the provisions of the two documents, it follows that the unified dispatch Call-centers “103” should be integrated with the duty-dispatch centers of the Unified hardware-software complex “Safe City”, whose tasks are much wider than the tasks of Call centers of emergency medical care.

Hence, there is a serious need for preparation (revision), coordination and approval of specific detailed actions that the dispatcher is obliged to take in certain cases. These requirements for the dispatcher, returning to the question of standardization, should be uniform and unified for each specific situation. They can be drawn up in the instructions or protocols and approved by a government decision, or by a mutual decision of the authorized executive bodies.

The issue of improving the work of the dispatching ambulance service and its integration with the duty-dispatching services will entail the

issue of qualification and professionalism of the staff of the dispatching service.

Improving the work of the dispatching service can serve as a solution to the issue of payment of provided services. The introduction of a health insurance system and the transition to public-private partnerships contribute the attraction of own funds of patients, victims, who are the potential recipients of emergency medical services, or the funds of third-parties, not the state. Under such circumstances, it is planned to reduce the number of false and inconclusive calls, as well as the general housing calls, when patients often do not understand when an emergency call is needed, and when it cannot or does not have the right to help (for example, acute toothache or need receipt of sick leave) and they should contact the clinic. Legally, the pursuit to resolve legal relations on the issue of payment has already been enshrined in the legislation: the Program of measures for the implementation of the Concept of development of the healthcare system of the Republic of Uzbekistan in 2019–2021 (Appendix No. 2 to the Decrees of the President of the Republic of Uzbekistan dated 07.12.2018 No. UP-5590), paragraph 4 provides for the adoption of the law “On compulsory health insurance”. However, the adoption of the law will require amendments to the regulations providing for the free provision of emergency medical care.

3. Proposals for improving legislation aimed at improving the activities of emergency medical services

Based on the results of the work, we came to the conclusion that it would be possible to prepare a single document that would include all the issues covered in the work, establish the norms and requirements that are binding on the subjects of legal relations in providing emergency medical care.

At the same time, amendments to the current legislation may serve to improve the activities of emergency medical services.

The program of measures to further improvement of the activities of the emergency medical services (Decree of the President of the Republic of Uzbekistan No. PP-2838 dated March 16, 2017) provides for the adoption of unified standards for the provision of emergency medical care, approval of clinical protocols based on unified standards for the provision of emergency medical care.

The program of measures to implement the Concept of development of the healthcare system of the Republic of Uzbekistan in 2019–2021 (Decree of the President of the Republic of Uzbekistan No. UP-5590 dated 12/07/2018) provides for the development and submission of the draft Law of the Republic of Uzbekistan “On Compulsory Medical Insurance” to the Cabinet of Ministers of the Republic of Uzbekistan, development and submission to the Cabinet of Ministers of the Republic of Uzbekistan of the draft Law of the Republic of Uzbekistan “On medical activities and compulsory insurance of professional responsibility of medical workers”, broad implementation of information and communication technologies and “e-health”.

Conclusion and proposals

1. In addition to improving the content of clinical protocols that are not legislation, procedural protocols should be developed, that is, action protocols (instructions, standards) containing the most complete detailed algorithm of how to act in a certain situation.

2. Establish disciplinary as well as administrative responsibility for non-compliance with the requirements of procedural protocols by personnel.

3. To establish the administrative and criminal liability of persons for hindering the provision of emergency medical care.

4. To make changes regarding free emergency medical care, determining that only the exclusive social package of services is free and guaranteed by the state (provided for in paragraph 4 of Appendix 2 to the Decree of the President of the Republic of Uzbekistan No. UP-5590 dated December 7, 2018). The increased burden on emergency medical care is caused by the provisions on its free and general accessibility, as well as insufficient primary care in terms of carrying out preventive work, medical examination, etc.

5. In accordance with the legislation on public control, to motivate and involve civil society institutions in the process of preparing draft regulatory acts by establishing associations of doctors, medical communities, organizations of protecting the rights and interests of medical personnel, etc. For example, the US created the National Health Council [5], which brings together various organizations to reach consensus and develop a patient-centered health policies. In Uzbekistan, it is also possible to revise the approach to the sectoral agreement of medical workers with the Central Committee of Trade Unions, giving the Trade Union the authority to protect the rights of doctors, including representing their interests in the judicial authorities, ensuring working conditions, etc. To ensure that such organizations are directly involved in the formation of public health policy, not limited to posting a draft regulatory act on the web-site for public discussion.

6. To develop a departmental regulatory act by the Ministry of Healthcare on the rules for calling a doctor to home and carry out large-scale work with the population in all regions, as well as the

media. Regardless of which particular doctor is called to the house (ambulance or district doctor), there should be a document regulating the validity of the call to the house. Here, to prepare amendments on toughening administrative penalties for false calls of specialized services. At the same time, not only an explanation of material and time costs, but also the principle of humanity can be used as a justification – as long as the team goes on a false call, a human life can be saved in somewhere.

At the level of heads of emergency medical care institutions, as well as educational institutions, the following measures are proposed:

- it is necessary to take into account issues of material interest of employees to obtain qualification categories and take this fact into account when forming the Regulation on salaries and distribution of incentive remunerations for the quality of work performed.

- while developing the program of study, it is needed to pay special attention to the legal training of listeners; encourage listeners to systematically improve their skills during work, for which, when passing qualification exams, tests, such factors as writing essays, students' attendance of seminars, scientific conferences, congresses between the cycles of general improvement should be taken into account.

- it is important to actively use the system of personnel development at the workplace, for which

stimulate workers to improve their professional knowledge and skills, actively interact with other medical institutions to analyze the defects in the provision of medical care, and develop joint tactics for managing patients at the prehospital stage.

- to use the system of additional professional education to improve the skills of their specialists in thematic improvement cycles.

- to take into account the impact of a high level of a personnel migration of specialists in the industry on the quality of medical personnel and the quality of their medical services. To study the reasons for personnel migration, allowing to make strategic management decisions on working with personnel and inhibition of the processes of migration of specialists.

No amendments in legislation will be able to fully reform the system of emergency medical services until the involvement of population throughout conducting constant, systematic work at all levels by advising, explaining, teaching and lighting.

Uzbekistan, as a member of the UN, has undertaken to fulfill (strive for implementation) the Sustainable Development Goals. To do this, when conducting reforms, it is necessary to constantly study the reporting, analytical materials of the World Health Organization regarding the implementation of the Sustainable Development Goals at the international level, using the best examples and practices.

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