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INTERNATIONAL EXPIRIENCE OF EMERGENCY MEDICAL CARE

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Summary. The article presents current data on organization of emergency medical care in the world. The global experience indicates the presence of several models of emergency medical care, one of which shows distribution between the primary and secondary levels. The introduction of this model in Ukraine with distribution of secondary emergency and primary emergency care did not show positive results. Effective implementation of this model is possible only if follow conditions exist: well developed, equipped primary health care, a sufficient number of qualified personnel and equipped establishments of general practice, that provide medical care day and night.
Keywords: emergency medical care, models, international experience, role of the family doctor
Резюме. У статті наведені сучасні дані щодо організації екстреної медичної допомоги в країнах світу. Представлений світовий досвід вказує на наявність декількох моделей екстреної медичної допомоги, в одній з яких існує її розподіл між первинним та вторинним рівнями. Впровадження даної моделі в Україні з розподілом на екстрену та невідкладну (первинну) допомогу не показало позитивних результатів. Ефективне запровадження даної моделі можливе лише за умов добре розвинутої і оснащеної первинної медичної допомоги, достатньої кількості висококваліфікованих кадрів та обладнаних закладів загальної практики, які надають медичну допомогу цілодобово.
Ключові слова: екстренна медична допомога, моделі, світовий досвід, роль сімейного лікаря
Резюме. В статье приведены современные данные по организации экстренной медицинской помощи в странах мира. Мировой опыт показывает наличие нескольких моделей экстренной медицинской помощи, в одной из которых существует ее распределение между первичным и вторичным уровнями. Внедрение данной модели в Украине с распределением на экстренную и неотложную (первичную) помощь не показало положительных результатов. Эффективное внедрение данной модели возможно лишь при условии хорошо развитой и оснащенной первичной медицинской помощи, достаточного количества высококвалифицированных кадров и оборудованных учреждений общей практики, оказывающих медицинскую помощь круглосуточно.
Ключевые слова: экстренная медицинская помощь, модели, мировой опыт, роль семейного врача

There are different models for organizing emergency medicine in developed countries. The general distinguish feature the most of them is is predominantly intensive care only for those patients who are in urgent need of intensive care emergencies (mobile emergency care). According to one model, patients who need emergency non-intensive care, refer to their family doctors or general practitioners, to which they are attached geographically, either to emergency department (emergency unit) of the nearest hospital. This sort of phone calls to emergency services carried out on the manager-stage when the controller (usually nurses with higher qualification) in accordance to the protocol questions ascertain the approximate nature of the call, and if the patient's condition is not threatening his life, he is advised to refer to general practitioners in its territorial area. This approach allows for a relatively small cost to provide it by highly qualified personnel and by all the necessary material and technical equipment, it is the most efficient use of available resources. However, the implementation of this model of organization of mobile ambulance service is possible only with the developed primary health care, in particular, a sufficient number of qualified institutions of general practice, which provide daily room service [2-5].

In another model a major role in providing emergency medical care is played by special mobile teams (emergency care), consisting of specially trained nurses who can provide all the necessary volume of emergency aid, including resuscitation. These teams may be part of separate independent units, and may be included in emergency departments at hospitals (emergency unit) [5].

In both of these models, common to most western countries, the pre-hospital phase of emergency care is provided by nurses. At the same time, in some developed countries physicians

are involved in pre-hospital emergency care working in mobile teams of emergency departments of hospitals.

The American model involves working prehospital paramedical teams only. At the same time the paramedics are equipped to provide resuscitation and transport of patients. The main goal of the paramedical teams is immediately bring the patient to the emergency room medical care (emergency department). The competence of the paramedics also includes an assessment of the severity of the patient's condition, to ensure viability of the major organs and systems, and, if necessary, the organization of therapeutic measures during transport of the patient in the emergency room [3, 5].

There are two approaches to the providing of emergency prehospital care:

«Scoop and run« (grab-and-run), when the transportation of the patient to the hospital team of paramedics takes less than 15 minutes,

«Stay and treat» (stop-and-treat) when the transport takes more than 15 minutes, then medical care in the prehospital phase is provided on the site with consulting by the telephone.

In fact, the role and aims of the doctors and paramedics is different on prehospital emergency care. The doctor, who has been trained in "emergency medicine", puts primary diagnosis, organizes and conducts therapeutic measures during transport of the patient in the emergency room and decides on the need and place of hospitalization. Paramedic shall immediately deliver the patient to the emergency room medical care (emergency department). After delivery of the patient to the emergency room the hospital emergency care begins room [3, 5].

Emergency departments are organized in hospitals and are structure between emergency rooms and intensive care unit. In some states, emergency departments are located outside the hospital, and then they act as emergency centres.

The Russian model of emergency medical care has undergone several changes in the short term. Before 1978, the emergency medical care in Russia is within the competence and duty to outpatient services, which for this purpose had medical staff and resource base (transport, health care and other stacking.). Since 1978, emergency care was consolidated that showed no effect. In 1988, the accident and emergency care were again divided with transfer of the latter one in outpatient clinics, but the transfer of emergency medical care in outpatient service did not take place. Physicians of emergency service outpatient clinics catered calls from territorial areas outside the working hours of local doctors, but not around the clock.

To date, there are no clear criteria for the division of medical services for an ambulance, emergency and urgent care by the legal acts that confuses the organization of medical care.

Since 2011, emergency assistance may be provided in outpatient setting, and stationary. The units that provide primary health care in the form of emergency can be created in structure of health care organizations. The experience of the Soviet and Russian medicine includes independent participation in the activities of the service "03" as the paramedics, ie nurses of the highest qualification, and doctors. The positive experiences were noted the involvement of the most experienced and qualified hospital doctors in specialized ambulance resuscitation care room [1, 4-5].

The European model of emergency medical care (the Franco-German model) involves working as pre-hospital medical and paramedical teams. The physician-manager after receiving a call decides what emergency team sent in each case. Thus paramedic teams significantly greater than medical, and their rate of arrival is higher than the medical teams. Their main goal of paramedic teams is to deliver the patient to the hospital quickly. The medical team tasks include providing emergency care on-site and during transport to the hospital. In-hospital emergency care is carried out in the emergency room, located in the hospitals, which are divided into 2 levels. The surgeons work around the clock on the first level, they carry out laboratory and functional studies. The physicians with additional training for emergency medical care and preservation of primary specialization (e.g., an anaesthesiologist, internist, surgeon, etc.) work on the second level only on call.

Over the past 20 years, the emergency departments of major hospitals were upgraded in the most of countries with increased capacity for emergency care to improve the quality and speed up the correct diagnosis in health care, taking into account the severity of the patient room [2, 5].

Poland. In Poland, the ambulance stations vary according to the type, which is determined by the scale of its operations, the number of persons served by the contingent. There are several types of ambulance stations - regional, district and city. The regional stations led by the manager, who performs the duties of an inspector and the head of emergency services for the area. The regional stations are usually connected with hospital (sometimes a maternity hospital) on 60 beds with rooms for examination of patients, laboratory, etc. The hospital serves for temporary (3-4 days) hospitalization of patients or to clarify ambiguous and dubious diagnoses. There is also a clinic for emergency care to patients who come on their own. At the regional stations, there are specialized teams besides linear teams: intensive care, cardiology, trauma, as well as teams to provide emergency assistance in case of mass disasters.

The city ambulance station by the structure and organization are similar to the regional stations. District (county) stations are attached, as a rule, to the district hospital or local clinic. However, if the regional stations operate independently, they have a dispensary, consisting of surgical and medical offices, x-ray, ECG, offices and laboratories. District station, as a rule, is not connected to the hospital. Radius of service of district stations is about 30-50 km [2, 5].

Belgium. Responsibility for the organization of emergency medical services in Belgium leads on the State, which organizes the service of a single call and first aid on the ground, as well as the transportation of patients to the hospital. There is a single number 900 for emergency medical assistance. National Frequency ambulance "I" is common to the whole country. It is intended for communication between the different centres in the case of mass disasters, to communicate with the victims and transport patients over long distances. National Frequency "I", the frequency of "900" and a special ambulance station frequency associated with 12 hospitals, which have highly specialized services, as well as with the majority of university hospitals. These hospitals and clinics are in permanent contact with the machine "900", with resuscitation machines, machines with a surgical emergency. Standard machines are equipped with two stretchers, a device for transporting trauma of the spine, spinal mattress, apparatus for oxygen resuscitation and suction pump. Intensive care machine is equipped with a dressing, electrocardiographs, monitor and defibrillator in addition to the standard equipment. Only 20 from 42 resuscitation machines used more or less systematically full equipment [2, 5].

Germany. The basic principles of emergency medical services are immediate transportation of the patient to hospital for qualified medical care. The fire brigades have been recognized as the most suitable to perform the functions of the transport service, taking into account the speed of movement. The call goes to the fire at first, which, if necessary, may apply to the service cars of the Red Cross, the Order of Malta volunteers, etc. Voluntary and professional fire brigades carry out 27% of emergency calls, the Red Cross cars - 68.5%. The specialized ambulances, private practitioners cars, as well as fire-fighters and police cars are used for transportation of patients [2, 5, 7-13].

There are three types of ambulances:

1) ordinary (for transportation) - "Krankenvagen";

2) paramedical (unskilled assistance) - "Rettungsvagen";

3) machine with a doctor on board an ambulance - "Notartstvagen."

Hospitals are not related to the transportation of patients, they are only obliged to accept emergency patients and patients referred by medical practitioners.

United Kingdom. Patients, who need of emergency intensive care, refer to general practitioners, to which they are attached geographically, either to the emergency room of nearest hospital by their own. The sort of phone calls to emergency services carried out at the dispatch stage. Manager finds a reason of call in accordance to the protocol questions, and if the patient's condition is not threatening his life, he is advised to consult general practitioners in its territorial area.

The providing of emergency medical conducted by special mobile teams composed of specially trained nurses who can provide all the necessary volume of emergency care, including resuscitation. These teams may be part of separate independent units, and may be included in emergency departments at hospitals.

National standards require leaving the car at the scene in case of emergency within 3 minutes after the call and the arrival on the scene within seven minutes. A characteristic feature of the UK ambulance service is a multidisciplinary nature of its activities. Ambulance Service of Great Britain serves a large number of "non-emergency" patients (patients with scheduled transportation), while in most other countries; ambulance service serves only acute illness or accidents [2, 5].

Ukraine. The experience of recent years with the introduction of the concept of "emergency medical care" separated between primary and secondary levels according to the legal acts of Ukraine shows that the dispatcher, underestimating the patient's condition sends emergency medical primary care machine and team which does not provide urgent medical intervention and is not equipped enough for urgent situation. Often it leads to wasting time and ends tragically, causing harm to life and health of the patient, because the team is not specified on such qualified emergency care and cannot provide the transportation of patient. It causes the refusal of medical care and, therefore, lawsuits against health care organizations.

Conclusions:

1. Emergency medical care can be provided as an outpatient and inpatient.

2. Emergency medical care can be provided through primary health care, and can be carried out as specialized medical care by doctors of any specialty.

3. The experience of recent years with the introduction of the concept of "emergency medical care" separated between primary and secondary levels according to the legal acts of Ukraine shows that the dispatcher, underestimating the patient's condition sends emergency medical primary care machine and team which does not provide urgent medical intervention and is not equipped enough for urgent situation. Often it leads to wasting time and ends tragically, causing harm to life and health of the patient, because the team is not specified on such qualified emergency care and cannot provide the transportation of patient. It causes the refusal of medical care and, therefore, lawsuits against health care organizations.

4. Effective existence of outpatient emergency service is only possible if the development of primary health care exist, in particular, a sufficient number of stuff and highly equipped establishments of general practice, which provide care day and night.

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