EMERGENCY AND ACUTE MEDICAL CARE: WAYS OF REFORMATION

Kalininskaya A.A.

Central scientific-research institute of healthcare organization and informatization of the Ministry of Healthcare of Russia, e-mail: ali.969@mail.ru

The article presents organization forms of acute medical care (AMC) at the basis of a city clinic, amount of AMC work, and an effect of its organization.

There are 3277 stations of emergency medical care operating in the country nowadays. 49,7 millions of calls have been realized, and 51,5 millions of people have been treated "in field" and as ambulatory patients in 2011.

Emergency medical care is the most expensive of all types of medical care. Normative expense per one call (according to the programme of State guarantees for 2011) equaled 1710,1 rubles, while one bed day of hospital treatment cost 478 rubles, and one visit of ambulatory clinic institution cost 218,1 ruble.

In the structure of medical care expenses in Russian Federation 6,7% of all costs refer to emergency medical care, 30,6% – to ambulatory-clinical care, 60,3% – to hospital care, 2,4% refer to hospital-replacing forms.

Since the service of emergency and acute medical care was created, its operation has continuously accumulated a number of problems that have been solved by another reorganization of this institute.

The definition «acute medical care» has been introduced as a conditional indication of the service in order to distinguish it from emergency medical care (EMC). In 1930-ies and 1940-ies provision of emergency medical care to population was delegated to EMC stations, points of home medical care have been organized for patients with diseases that imply no life hazard, they have become known as «acute medical care» (AMC). Consolidation and separation of these to services took place every 10–15 years during following years. At the same time, definitions «emergency» and «acute» medical care have fixed among healthcare organizers and population after more than 80 years.

83% of EMC calls refer to calls to patients with diseases in average and big Russian cities, and only 17% are calls for traumas and accidents [2].

Nowadays a separate organization of emergency and acute medical care is introduced in separate territories of Russian Federation. However, EMC covers all calls from the streets and public places, and also calls from apartments by patients with life-hazardous conditions who require an urgent help of a specialist (suspicion of myocardium infarction, etc.).

The following functions are delegated to AMC: delivering acute medical care to the attached population in case of acute forms and intensifications of chronic diseases; provision of call for emergency medical care according to indications; establishment of succession between district doctors and specialists; opportune notification of sanitary-epidemiologic service supervision in case of revealed infectious diseases. Organization of separate services of EMC and AMC by policlinics really provides for its clear succession with ambulatory link [1].

Reformation of emergency and acute medical care cannot take place in separation from regulations of the Concept of healthcare and medical science development that implies training doctors of general practice (family doctors). Transition of initial medical care towards general medical practice should result in decrease in calls of EMC. Development of general medical (family) practices, organization of daytime hospitals, home hospitals, and also dispensary and preventive work will relieve EMC from a lot of unreasonable calls.

City policlinic № 1 of the city of Samara that treats 59,2 thousands of population, including 50,9 thousands of adults, served as an experimental base of the research on mastering organization forms of separating operations of emergency and acute medical care services. AMC was established in 1998.

Acute medical care of basic policlinic has three teams, each of them consist of a doctor, medical assistant, and a driver. 3 vehicles are assigned for operation of acute medical care. AMC working hours are from 8 to 24 hours including days-off and holidays. Dispatch service of AMC is located within the structure of policlinic reception.

The population is informed on the order of calling for AMC. The succession between services of AMC and EMC makes it possible to redirect calls from AMC to EMC and the other way via modem communication.

AMC services are equipped with a bag with a set of necessary medications, needed to deliver urgent care to patients, portative electric cardiograph, defibrillator, set of braces, and tools, required for tracheotomy.

11180 calls from population of basic treatment-preventive institution have been received by AMC service during 4 years of analysis. Frequency of calls for AMC equaled 188,95 per 1000 of population; frequency of calls for EMC equaled 90,3 per 1000 of total population (104,95 per 1000 of adult population). Sum index of frequency of calls for AMC and EMC equaled 279,25 per 1000 of total population. Part of AMC in total number of calls for EMC and AMC equaled 32,3%.

The number of patients, treated by AMC teams increased 1,8 times and equaled 5342 calls during the analyzed period, at the same time, part of calls from the attached population for EMC decreased by 12,5%. It results from the fact that citizens learnt to call of EMC and AMC differentially.

Active visits to patients by AMC teams with indications for EMC equaled 4,3%. Policlinic doctors (district doctors and doctors of general practice, head doctors in departments, specialists) formed active calls for AMC in order to observe health condition of a patient. The part of such calls equaled

11,1%, including those directed from district doctors and doctors of general practice – 9,5%, policlinic specialists – 1,1%, head doctors – 0,4%, home hospital doctors – 0,1%.

The analysis of EMC calls' results during the studied years has shown that 86,2% of patients have been left home after the necessary treatment, besides, 7,3% of the total number of patients who called for EMC, didn't need it and were instructed to visit district doctors and doctors of general practice. 8,7% of patients who called for EMC, were hospitalized.

The part of hospitalized patients who have been initially served by EMC, decreased from 14,1 to 8,7%, and it partially it is the result of operational succession between EMC and policlinic link and activation of preventive work by district doctors and doctors of general practice.

Costs of calling EMC and AMC teams are formed of the following expense entries: salary, charges of direct labour costs, medications and dressing means, economic expenses (including gasoline costs and amortization of equipment), capital repairs, payments for current equipment repairs.

We have established differences that define different costs of calling teams of EMC and AMC. Lower cost of calling AMC team in comparison to EMC calls is formed due to three-shift work regime of AMC teams (16 hr), compared to round-the-clock EMC work regime. Economy on AMC is also achieved via smaller radius of vehicles' mileage (2 times less, compared to the same index for EMC), and lower expenses on medications.

A stable coefficient in relations between EMC and AMC calls' costs has been established for the studied period and equaled 2,56.

These calculations show us that costs of calling general-profile and doctor assistant EMC teams differ insignificantly (relation coefficient equals 1,1), however, there is a significant economic effect of organizing AMC service at the basis of ambulatory-policlinic institutions, as it is 2,6 times cheaper.

Thus, the suggested organization-functional model of AMC department at the basis of a city policlinic provides for an efficient utilization of healthcare recourses.

A possibility of differential approach towards organizing services considering special features of a region, service radius, transportation availability, population's age composition, number and structure of calls, location of healthcare institutions, and other conditions while choosing a model of forming them should be preserved.

References

1. Balzamova L.A. Efficiency of using healthcare resources in ambulatory-policlinic conditions: author's abstract for dissertation of candidate of medical science. – M., 2004. – 26 p.

2. A. Ermolov A report for the board of the Ministry of Healthcare of Russian Federation «Improving organization and development of emergency medical care in Russian Federation». – M., 2002.

The work was submitted to International Scientific Conference «Present-day problems of science and education», Russia (Moscow), February, 25-27, 2013, came to the editorial office 29.05.2013.