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THE ROLE OF HIGH-TECH MEDICAL CARE IN THE HEALTH CARE SYSTEM (REVIEW ARTICLE)

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Abstract:

This review article analyzes the role of high-tech medical care (HCT) worldwide, including in Uzbekistan. It also examines the tasks for reducing mortality, morbidity and disability from CVD to the state cardiology services.

Keywords: High technology medical care, cardiovascular diseases, mortality, morbidity and others.

INTRODUCTION. According to the World Health Organization (WHO) in recent decades in economically developed and developing countries of the world, despite the therapeutic successes achieved, daily improvement of modern diagnostic and high-tech treatment methods, large expenditure on funding aimed at the prevention of diseases, there is still a high mortality from CVD. Timely detection of patients with CVD in the early stages of the disease using high-tech diagnostic and therapeutic methods is one of the pressing problems of modern cardiology. Along with these urgent problems, research on early detection and prediction of CVD risk to provide high-tech medical care (HCT) in a timely manner is considered to be the most important [31, 32, 45]. Timely and at the same time high quality provision of VMM to patients with cardiovascular pathologies in different regions of Uzbekistan is one of the main priorities of public health system [22, 23, 45].

According to the World Health Organization (WHO) over the last 15 years, cardiovascular diseases still maintain their leading position among the causes of mortality and disability in both adults and young population. It is important to take into account the annual mortality from cardiovascular diseases (CVD), which is about 17.7 million people, which is 31% of all cases of mortality worldwide [23, 24]. Numerous studies have shown that circulatory system diseases (CSD) are responsible for 4,300,000 deaths annually in Europe, and in the developed countries of the European Union (EU) more than 2,000,000 deaths occur, accounting for 48 and 42% of all deaths, respectively [21, 23, 45]. About 23.6 million people are projected to die from CVDs by 2030, but the individual prognosis may change positively or negatively depending on the diagnostic-therapeutic and prophylactic measures undertaken [15, 21, 23, 45]. The tactics of measures aimed at the diagnosis, prevention and treatment of CVDs, in general, depends on such global problems of the population as the need for long-term treatment, the high cost of drugs and IAP to treat a particular disease, the rehabilitation of patients after inpatient and outpatient treatment, which lead to significant financial costs for the state and the population [10, 11, 13, 17].

Many diseases are considered to be CVDs, but the most common diseases that lead to disability and mortality include such diseases as coronary heart disease (CHD), acute myocardial infarction (MI), cerebrovascular disease (CVD), hypertension (HD), malignant arterial hypertension, diseases of peripheral arteries and veins, acquired heart defects of rheumatic and non-rheumatic genesis, congenital heart defects and anomalies, acute and chronic heart failure, malignant vital various types of arrhythmias, myocarditis, etc. pathologies [4, 8, 9, 36, 45].

One of the main target directions of social policy of each state is public health protection, prevention of morbidity, early detection of latent course of CVD and reduction of mortality, disability of population from the latter, where the optimal use of financial, material and human resources is the least important. To achieve the goal set before the state and the health care system to improve public health, it is important to reorganize medical organizations according to the appropriate methodology of the health care system, which corresponds, its coordination with the Presidential Decree of 29.03.2017 № PP-2857, conducting preventive examinations of rural population, including directly in the place of residence, implementation of laboratory clinical, biochemical and instrumental (ultrasound, ECG, etc.) research, creation with

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To achieve the goal of reducing mortality, morbidity and disability from CVDs, the state cardiology services should perform the following tasks: 1. The fight against risk factors at the state level, primary prevention and early detection of the latent course of CVD. 2. Creation of favorable conditions for all patients for prevention, examination and treatment in primary health care, providing them with necessary medicines. 3. In hospitals with cardiology profiles and/or departments of primary health care, to provide medical, diagnostic and therapeutic high-tech equipment. 4. Expand the coverage of patients with CVD and improve the quality of VMP for patients with CVD with visits, according to the schedule of specialists in the regions and/or by sanaviation. 5. Increase the level of professional skills and capacity of primary care specialists and cardiology teams providing VMMC. 6. Training and advanced training of specialists in cardiac surgery. 7. Development of organizational structure of cardiology, interventional cardiology and cardiac surgery care. 8. Implementation of effective methods of prevention, early diagnosis, treatment and medical rehabilitation of patients and disabled people with CVD. 9. 9. Introduction of modern IT-technologies to provide medical services and organize remote consultation "telemedicine" for patients with CVD [31, 42]. In order to achieve the above goals and directions in all countries of the world, including our republic, the implementation of new and improvement of existing ways of prevention and treatment aimed at strengthening and preservation of public health by primary health care and providing them with specialized care, including VMM [12, 14, 18, 20] has already begun.

Statistical analysis on the study of the activities in the health care system of developed countries in recent years has shown that the main attention is paid to the role of the evaluation of VMM used to preserve, promote and restore health, which consist of any diagnostic, therapeutic, preventive and rehabilitative methods.

The introduction of the state order for the provision of VMM in the state medical institutions allowed to increase the volume of VMM, their financing and a number of organizational measures, at the same time the system of providing VMM needs to be improved. Currently, its main problems remain: low provision of universal, equal and unrestricted access for many who need a HMP; shortcomings in the planning, organization and financing of HMP [1, 3, 16, 25, 29]. The reasons for the problems and unrealized opportunities in the provision of HMC exist not only in financial, material and technical and personnel support, but also in the shortcomings of management, organizational and methodological support and imperfection of the regulatory and legal framework. Due to the measures taken by our government to increase the funding of state medical institutions, it has been possible to ensure the priority development in the sphere of HPC [26, 27, 30, 46]. The age of high technology is characterized by significant success in the creation of modern high-tech medical equipment, which will help to carry out the provision of the HMP. All types of VMM, in accordance with the standards of medical care approved by the orders of the Ministry of Health of the Republic of Uzbekistan, will allow to determine the guaranteed volume of VMM provided to the population free of charge at the expense of the state budget and to carry out effective control over its quality [2, 5, 8, 22, 33, 35, 40]. However, so far these standards do not make it possible to determine the projected and real costs, although at first they were supposed to serve as the basis for determining the cost of one case of high-tech treatment [3, 7, 11].

Taking into account the increase in the number of patients in need of HCT and the volume of financial resources allocated for HCT provision, it is particularly important to ensure a high-quality selection and referral of patients to HCT, respecting their rights in the provision of this care. According to the current regulatory framework, the selection and referral of patients for the provision of HMP is carried out by the territorial health authorities of the subjects of the Republic of Uzbekistan [28, 37, 38, 49].

According to domestic experts, in our republic, despite the HMP carried out for the population, there is still a gap between the population's need for HMP and their provision by the health care system; there is still a disproportion in the provision of HMP to the citizens of RU depending on the region of their residence. When analyzing the interaction between the Samarkand branch of SF RCHMC with regional health authorities it was shown that to date there are no clear criteria for the selection of patients for the provision of HMP. Some patients who arrive at the NF MRCCF with a medical coupon or referral do not have medical indications for receiving a particular type of IAP [19, 20].

Currently, the population's accessibility to HMP is not properly ensured, which is one of the reasons for the high rates of preventable mortality and disability and causes justified dissatisfaction among the population. The main problems are low accessibility of this type of medical care for the population and shortcomings in its planning, organization and financing. It is necessary to increase the medico-social and economic efficiency of the state medical institutions participating in the programs of providing VMMC. In order to improve the effectiveness, accessibility and quality of VMMC it is necessary to conduct a comprehensive study of the organizational, regulatory, financial, economic, medical and sociological aspects of its provision [34, 39,]. Currently, in Uzbekistan, 782,000, or 2.4% of the population are recipients of pensions and benefits as persons with disabilities (of

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which 376,000 are persons with group I and II disabilities). It should be noted that among children and adults, CVD causes about 20% of deaths and more than 80% of disabilities, in the adult population from 28 to 60 years of age. The minimum allowance for disability per year is 7,464,000 per patient. The payment of an allowance per year to a legal representative caring for a disabled child under 18 years of age who requires home care is 6,000,000 [41, 43, 45, 48].

If one looks at data as of November 2022, the disability rate among children with congenital heart disease (CHD) is 6%, which translates into 46,920 children (approximately 30 billion soums) per year. The legal representative caring for them is paid (about 25 billion soums) per year. Accordingly, if you count it on the basis of 18 years, it turns out a very impressive sum, and without taking into account the direct economic damage. The adult population registered as disabled due to HES is 4%, which, in its turn, is 31,280 people of working age (195 billion soums) a year [22, 25, 51, 54, 56]. Then by paying 1/5 of one year of disability allowance for VMP, it will be possible to save the state budget for all categories of both direct and indirect economic damage by 70-85%. It is especially important to emphasize that the IAP will help save the state budget both from the above-mentioned point of view and from the point of view of the annual financial provision of disability benefits for patients. In children, the provision of VMM is in 90% of cases the most productive, which in the future allows to maintain the ability to work and will lead to a reduction in disability in each cell of society, affecting the social status and well-being of other members of the family. That in turn prevents psycho-emotional and socio-economic instability in the family [44, 45, 51, 52]. Summarizing all of this, we can confidently note that the introduction of HMP as a new step in the health care system will comprehensively help to affect the statistics of the level of life and disability in our Republic. Thanks to the introduction of VMM in the cardiology profile in the field of health care, mortality rates are significantly reduced, the quality of life of patients is improved, the number of disabilities is reduced, and the life expectancy of patients with CVDs is increased. That will lead to an increase in the population's demand for IAP [48, 49, 50, 55].

The assessment of VMM is determined by the following criteria: openness and accessibility of information on VMM; comfort of the conditions for providing high-tech medical services and their accessibility; waiting time for high-tech medical services; friendliness, politeness, competence of medical organization employees; patient satisfaction with the provided high-tech medical services [24, 48, 49].

It is necessary to improve the mechanism of forming the state order for the provision of VMMC on the basis of the study of the need for it in the regions and the analysis of the possibilities of its provision in the medical institutions of the state level. It is necessary to improve the quality of selection of patients for the provision of VMMC on the basis of close organizational, methodological and informational interaction between regional management bodies and health care institutions and medical organizations of the state level.

In the last 10 years our state has implemented significant investments in the field of health care. But even that did not help to improve the situation to the full extent, as they were not large-scale, not carried out by highly effective organizational, financial and economic measures. With the level of development of health care in the RUz lagging behind the level of health care in developed countries - significantly stronger, compared to other key sectors of the economy [22, 24, 36, 44].

Despite the rapid development and introduction in cardiology practice of new VMP, the mechanisms of patients' access to all types of VMP and organizational processes in this area have not been studied sufficiently. There are practically no studies evaluating the group of patients in need of IAP. However, at the present moment there are practically no studies devoted to this activity in the field of VMP provision, which determines the relevance, purpose and subject of the study.

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