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PREVALENCE OF CARDIOVASCULAR DISEASES AND PROBLEMS OF CARDIOLOGICAL CARE FOR THE POPULATION AT THE REGIONAL LEVEL

Cardiovascular diseases (CVD) are the leading cause of death and disability of the population of Ukraine, which determines the socio-medical and socio-economic importance of the problem of prevention and improvement of medical care for patients with CVD. World experience shows that the proper level of medical care can significantly reduce premature mortality from CVD [1,2,3].

CVD mortality and prevalence rates have significant regional differences due to a range of causes, including feature of the demographic situation, different prevalence of risk factors, the effectiveness of preventive work, quality and availability of medical care [2,4,5].

Territorial features of CVD epidemiology should be taken into account when substantiating regional CVD prevention programs, as well as ways to improve the organization of cardiac care at the regional level.

Kyiv region is characterized by the highest rate of loss of life potential of the population in Ukraine (due to premature mortality and disability) from CVD [5]. Therefore, monitoring the epidemic situation regarding the incidence and prevalence of CVD in Kyiv region in order to further substantiate the possibilities of improving the organization of medical care for CVD patients is an urgent medical and social problem.

The aim of the work is to determine the modern features of the incidence and prevalence of CVD among the adult population in the Kiev region, identify the

problems of the organization and substantiate the ways of improving cardiological care for the population at the regional level.

Material and methods

The analysis of the incidence and prevalence of CVD among the adult population of the Kiev region was carried out in dynamics for 2010-2019 and compared with Ukraine on the basis of statistical data from the Center for Medical Statistics of the Ministry of Health of Ukraine and the Kiev Regional Center of Medical Statistics using statistical methods of dynamic and territorial analysis.

The analysis of the resource provision of the cardiological service in Kyiv region carried out in the dynamics for 2010 - 2019 on the basis of statistical reporting forms (f. № 17, f. № 20).

The sociological survey was conducted in 2020 and covered two representative groups of respondents: a) 829 patients with CVD, who were observed by family doctors and district cardiologists in Kyiv region; b) 352 cardiologists from all regions of Ukraine.

Results

It has been determined that in the Kiev region more than a million residents suffer from CVD. In 2019 the incidence rate of CVD was 446.2, and the prevalence of CVD was 7114.8 per 10 thousand of the adult population. The epidemic of CVD in the Kiev region is much more spread than in Ukraine. Myocardial infarctions in the region are diagnosed 1.2 times, and strokes 1.5 times more often than in the country, and the prevalence of ischemic heart disease is 1.5 times higher than in Ukraine. The tendencies to increasing the prevalence (by 8.5%) and incidence (by 5.7%) of CVD in the Kiev region during 2010-2019 were determined. Unfavorable dynamic trends in CVD morbidity in Kiev region and a significant excess of regional indicators of averages in Ukraine indicate the need to improve the system of prevention and medical care for patients with CVD in Kiev region.

Problems of resource and logistical support of the cardiology service in Kyiv region were revealed, in particular: incomplete staffing of cardiologists (75.1-88.2%), reduction of cardiac beds (by 51.3%, from 6.1 in 1995 to 2.97 per 10 thousand population in 2019), low level of diagnostic equipment. In 2019 10 out of

29 districts of the region had only electrocardiographs for the diagnosis of cardiac pathology, 14 districts were not provided with echocardiographs, and 16 districts were provided with bicycle ergometers. Holter monitoring of ECG and blood pressure of patients can be performed only in 4 districts of the region.

To substantiate the ways to improve the organization of cardiological care at the regional level, we conducted a sociological study.

The results of the an anonymous survey of 829 patients revealed the following - in order to improve the organization of cardiac care to the population it is necessary to: optimize the organization of appointment ($51.4 \pm 1.7\%$), increase the number of cardiac appointments ($67.5 \pm 1.6\%$), improve medical equipment of health care facilities ($52.3 \pm 1.7\%$), to ensure that all doctor-prescribed laboratory tests can be performed ($45.9 \pm 1.7\%$), to expand the types of diagnostic examinations ($45.8 \pm 1.7\%$).

According to the results of the an anonymous survey of 352 cardiologists the principle areas for improvement of the cardiac care organization for the rural population are fund increasing for health care facilities ($91.5 \pm 1.5\%$), increase wages ($87.2 \pm 1.8\%$), the introduction of compulsory health insurance ($81.8 \pm 2.1\%$), introduction of mechanisms of economic motivation for staff ($89.8 \pm 1.6\%$); supplying clinics with modern medical and diagnostic equipment ($73.9 \pm 2.3\%$); improving the postgraduate quality training for cardiologists ($8.2 \pm 1.9\%$); increase of economic and legal independence of clinics ($78.1 \pm 2.2\%$); and introduction of public-private partnership in health care ($79.3 \pm 2.2\%$).

At present, Ukraine has created the legal and institutional framework for the implementation of investment mechanisms of public-private partnership in health care: Law of Ukraine of 01.07.2010 № 2404-VI "On public-private partnership" [6].

The mechanism of public-private partnership is the way to attract investments in the health care system.

In our opinion, the priority direction of improving the organization of cardiological care in the new economic conditions is formation the regional cardiological clinics on the principles of public-private partnership.

Conclusions

High levels and unfavorable trends in the incidence and prevalence of cardiovascular diseases in the Kiev region were observed.

Chronic underfunding and an unsatisfactory level of development of the material and technical base of outpatient clinics providing cardiological care to the population of the Kiev region were determined.

A number of problems with the organization of outpatient cardiological care for the population were revealed according to the results of a sociological survey of patients with cardio-vascular diseases and cardiologists.

The priority direction of improving the organization of cardiac care in the new economic conditions is the formation of regional cardiological clinics on the principles of public-private partnership.

The results of this study will be used in the future to develop organizational model of the regional center of cardiology and cardiac surgery on the principles of public-private partnership, as a new organizational and legal form of providing quality cardiological care.

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