

REVIEW ARTICLE

RESOURCES OF CARDIOLOGICAL CARE (ON THE EXAMPLE OF THE KYIV REGION OF UKRAINE)

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ABSTRACT

The aim: To analyze the network, resources of outpatient clinics in the Kyiv region (Ukraine) that provide cardiac care.

Materials and methods: With the help of the medical - statistical method the analysis of the network of outpatient clinics of the Kyiv region which render cardiological medical care and their resources in dynamics from 1995 to 2019 was carried out. During the analysis the methods of statistical grouping, compilation, generalization, statistical comparison were used. The materials for the analysis were the data of reporting statistical forms № 20 "Report of the treatment and prevention institution" and form № 17 "Report on medical staff" of the Kyiv region individual institutions and districts, as well as statistical directories of the information-analytical center.

Conclusions: On the basis of the analysis of the network, resources and activity of outpatient clinics of the Kyiv region that provide cardiac care the existing problems of this type of care were revealed. The provision of cardiac diagnostic tests over five years did not change, which is proved by analysis made. It is established that at the present stage of providing high-quality and affordable cardiac medical services within the existing system of cardiac outpatient care to the population of the Kyiv region has great difficulties and needs to be solved.

KEY WORDS: network, resources and activities of outpatient clinics; cardiac care provision

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INTRODUCTION

The leading role in maintaining and strengthening the health of the population belongs to outpatient care in which up to 90% of patients who seek medical care must begin and complete their treatment [1]. And, first of all, it concerns the availability and quality of cardiac care, including its high-tech types, as currently, diseases of the circulatory system (DCS) remain the leading cause of death and disability in most European countries, including Ukraine [2]. This determines their significant medical, social and socio-economic importance [3-5].

As the experience of many countries shows, the effectiveness of the cardiological service functioning, the provision of high quality medical aid depends on the use of promising organizational and advanced medical technologies, the level of training of highly professional personnel, their economic incentives [6].

Under Ukrainian current economic conditions, associated with the reduction of public investment opportunities, there is growing interest in alternative forms of social facilities financing. There are a lot of examples of such an alternative form of financing – this is public-private partnership.

An urgent problem of this country health care system is the need to move it to progressive models of development that ensure the structural efficiency of medical sector [7].

To solve this problem it is necessary to conduct a comprehensive analysis of outpatient clinics activities, evaluation of their experience. High cardiac morbidity requires the improvement of outpatient care facilities that provide

cardiac aid, introduction of new organizational forms of medical care, introduction of advanced technologies.

THE AIM

The aim was to analyze the network, resources of outpatient clinics in Kyiv region that provide cardiac care.

MATERIALS AND METHODS

With the help of the medical - statistical method the analysis of the network of out-patient clinics of the Kyiv region which render cardiological medical care and their resources in dynamics from 1995 to 2019 is carried out. During the analysis the methods of statistical grouping, compilation, generalization, statistical comparison were used. The materials for the analysis were the data of reporting statistical forms № 20 "Report of the treatment and prevention institution" and form №17 "Report on medical staff" of individual institutions and districts in the Kyiv region, as well as statistical directories of the information-analytical center.

REVIEW AND DISCUSSION

The analysis of the network, staffing of the cardiology service of Kyiv region in 2014-2019 showed that cardiac care for the

Table I. Cardiology consulting rooms of Central District Hospitals

Name of the region	Number of consulting rooms
Kyiv region (total)	27
District	24
Bila Tserkva	1
Boguslavsky	1
Boryspil	1
Borodyansky	1
Brovarsky	2
Vasylkivsky	1
Vyshgorod	1
Ivankivsky	1
Kyiv-Sviatoshynskyi	2
Makarivsky	1
Myronivsky	1
Obukhov	1
Pereyaslav-Khmelnytsky	1
Rokytnyansky	1
Skvyrsky	1
Tarashchansky	1
Tetiivsky	2
Fastivsky	1
Bila Tserkva	2
Irpin	1
Fastiv City Hospital	1
Regional institutions on the territory of Kyiv	1
Region children's hospital №1 (Boyarka)	1
Region children's hospital №2 (Bila Tserkva)	1

population of the mentioned area is provided by the cardiological consulting rooms of Central District Hospitals (CDH) (Table I), which had 38 outpatient positions of cardiologists (by 01.01. 2019). During 2014 - 2019 there were no significant changes in the network of cardiac offices of the Kyiv region.

Thus, there are a total of 27 cardiology consulting rooms in the Kyiv region, and 24 of them are in the districts of the region and 3 in regional institutions.

In total, from 2014 to 2019, there were 102.75 positions of cardiologists in the Central District Hospitals, including 38.00 positions in outpatient clinics and 64.75 positions in hospitals (Table II).

There were no cardiologists' positions in Stavyshe, Polissya districts and Rzhyshechiv by the end of 2018.

For 15 years (1995 – 2014) the number of cardiologists decreased from 108 persons in 1995 to 79 in 2014 in the Kiev region, but then from 2014 to 2019 on the contrary it increased to 91 by 2019.

Dynamic analysis of the state of the cardiology network in the Kyiv region from 2014 to 2019 showed that the devel-

opment of the material and technical base of the cardiology service in the Kyiv region is insufficient.

Besides In the Kyiv region there is also a downward trend in cardiac beds, which in 1995 numbered 1160, i. e. 6.1 per 10 thousand of population; in 2014 - 710, which corresponds to 4.08 per 10 thousand of population, and in 2019 year - 513, which corresponds to 2.97 per 10 thousand of population of the region. In fact, the reduction was almost 56%, i. e. in the Kyiv region every second cardiac bed was reduced.

From 29 districts of the Kyiv region 10 districts are equipped with minimal diagnostic equipment for the diagnosis of cardiac pathology (Table III).

In 14 districts there are no echocardiographs, in 16 districts they do not work, or there are no bicycle ergometers, and from 8 districts which have bicycle ergometers, in three they are 1982-1985 years of release. Only 3 districts of the region, Kyiv Regional Hospital №2 and Kyiv Regional Cardiology Dispensary, can perform daily ECG and blood pressure monitoring. Of the 15 districts, i.e. a half do not have the opportunity to conduct blood tests for lipids. Holter ECG and blood pressure monitoring of patients can be performed only in 4 districts of the region, Kyiv Regional Hospital N 2 and Kyiv Regional Cardiology Dispensary.

The dynamics of indicators of cardiological diagnostic tests for five years shows that almost nothing has changed for the better, and BEM and CRFC became less.

The Kyiv region of Ukraine remains practically the only one in the country where a cardiac surgery center which carries out methodical work with the network of cardiac Central District Hospitals.

For a number of years, cardiovascular diseases and exacerbations of their chronic forms occupy one of the leading places in the structure of the general morbidity of the population of Ukraine. Increasingly, cardiovascular diseases are registered in people of young working age, which causes significant economic damage. The proportion of diseases of the circulatory system remains stably high, and diseases of the circulatory system continue to occupy a leading place in the structure of total mortality of the population.

Therefore, the provision of highly specialized cardiological care to the population of the country and, in particular, the Kiev region should be one of the priority tasks of public health.

Improving medical care for patients with cardiovascular diseases will require equipping specialized medical and preventive institutions with medical diagnostic equipment, modernizing hospitals in medical and preventive institutions of a cardiological profile. increasing the volume of specialized (interventional and cardiac surgery) types of care for cardiological patients.

The use of all types of emergency care for cardiological patients (medication, endovascular, cardiac surgery) requires appropriate staffing and regulatory and methodological support.

It is also necessary to improve the continuity in the provision of medical care at the outpatient and polyclinic stages, which will help reduce mortality and disability.

Table II. Number of outpatient positions of cardiologists in the Kyiv region

Job title	Including in the polyclinic (outpatient clinic) dispensary, consultations	
	full-time employees	Position held
Kyiv Region	38.00	35.75
Districts	31.00	28.75
Baryshivsky	0.25	0.25
Bila Tserkva	1.00	1.00
Boguslavsky	1.00	1.00
Boryspil	1.50	1.00
Borodyansky	1.00	1.00
Brovarsky	2.00	2.00
Vasylkivsky	1.75	1.75
Volodarsky	0.50	0.50
Vyshgorod	1.25	1.25
Zgurivsky	0.50	0.50
Ivankivsky	1.00	1.00
K-Sviatoshynsky	3.50	3.50
Kagarlytsky	0.50	0.00
Makarivsky	1.00	1.00
Myronivsky	1.00	1.00
Obukhov	0.50	0.50
P-Khmelnytsky	1.00	1.00
Polissya	0.00	0.00
Rokytnyansky	1.00	1.00
Skvytsky	1.00	1.00
Stavyshchansky	0.00	0.00
Tarashchansky	0.50	0.50
Tetiivsky	1.00	1.00
Fastiv	1.00	1.00
Yagotinsky	1.00	1.00
Bila Tserkva , town	4.00	4.00
Irpin, town and Bucha, town	1.50	1.50
Berezan, town	0.00	0.00
Rzhyshev	0.00	0.00
Region hospital №2	2.50	2.50
Region cardio dispensary	4.50	4.50

Table III. Dynamics of indicators of provision of cardiological diagnostic examinations, 2014 -2018

N	District	ECG		EchoCG		BEM		PCCS		Holter		Angiography
		2014-2018	2014	2018	2014	2018	2014	2018	2014	2018	2014-2018	
1	Total by districts	30	15	16	14	8	0	0	3	4	1	
2	Total, regional	2	2	2	2	2	2	1	2	2	1	
3	Total by district	32	17	18	16	10	3	1	6	6	2	

CONCLUSIONS

It is established that at the present stage of providing high-quality cardiac medical services within the existing system of cardiac outpatient care to the population of the Kyiv region has great

difficulties. The problem of organizing cardiac care for the rural population of Kyiv region does exist and needs to be solved.

Prospects for further research. The results obtained will be used in substantiation of conceptual directions of

improvement of cardiac outpatient care to the population of the Kyiv region and development of functional-organizational model of the regional center of cardiology and cardiac surgery on the principles of public-private partnership (PPP).

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Conflict of interest:

The Authors declare no conflict of interest.

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