## ORGANIZATION OF HEALTHCARE, MEDICAL SCIENCE AND EDUCATION

S.A. Bogachevskaya, A.N. Bogachevskiy, N. A. Kapitonenko

# CARDIOVASCULAR MEDICAL CARE IN THE FAR EAST FEDERAL DISTRICT IN THE PUBLIC HEALTH OFFICIALS' OPINION

#### **ABSTRACT**

This article presents a study of the views of the health officials of the availability and quality of medical care for the circulatory system diseases in the institutions of the Far Eastern Federal District, based on the materials of sociological research from 2013 to 2015 (197 respondents). Reveled passivity of the health officials to assess the situation and making the potential administrative decisions under the circulatory system diseaseshas a negative impact on the process of provision and the development of medical care to the population of the region and indicates the presence of defects in the health care management system. Itdoes notfavor social and economic attractiveness of the Far Eastern Federal District, which according to a tenth of the respondents is one of the ways to reduce the mortality of the circulatory system diseases in the region. A comparative analysis of the views of patients, doctors and managers seems to be more informative that will allow identifying problems and suggesting solutions.

Key words: structure of cardiovascular medical care, evaluation with medical care satisfaction, the levels of care, continuing medical education standard.

### INTRODUCTION

Cardiovascular diseases (CVD) are the main cause of temporary disability and death in Russia and abroad [1, 2]. Today the analysis of efficiency of functioning of medical institutions in terms of the quality of specialized medical care and achievement a positive effect through satisfaction rate gains in particular importance [5]. First, there are questions of the patients' competence in the evaluation of various aspects of institution functioning as well as practitioners' competence in the assessment of organizational issues in the medical service.

Often patients as consumers of medical service have no opportunity to compare the quality of services for key parameters. It is easier for them to appreciate the elements of the process, where they have a wide field for comparisons [4]. Practitioners often have difficultiesto assess organizational issues. This requires the involvement opinion ofhealth organizersin research. It seems that the assessment of the organizational aspects of medical care servicefor CVDby health organizers will allow approaching more objective to the evaluation of medical care in general and on the key parameters.

#### **MATERIALS AND METHODS**

We used materials of a poll of health organizers (197 respondents) in the years 2013-2015 to assess the quality of care for CVD in the Far Eastern Region (FER): accessibility ofmedical care for the population, the quality of services and specialist knowledge in the diagnosis and treatment of CVD [6]. Statistical processing was realized using Microsoft

Excel Statistic package of statistical programs. Statistical significance was conducted based on the results of reliability parameters using sampling error and confidence limits of the relative values of the universe. The level of statistical significance was accepted asp <0.05 (CI: 95.0%).

#### **RESULTS**

The respondents of 7 territorial subjects of the FER were involved in the study.  $30.5 \pm 3.3\%$  of respondents were men and  $69.5 \pm 3.3\%$  of them were women. The most numerous groups among our respondents were aged from 41 to 50 years (34.0 ± 3.3%) and from 51 to 60 years (33.5  $\pm$ 3.4%). Representatives of the regional institutions were 53.8 ± 3.6%; ones of the administrative centers of the Russian Federation subjects were 49.8 ± 3.6%, ones of the countryside were a fifth part of all respondents (20.3 ± 2.9%). Health organizers on the basic profession were  $42.6 \pm 3.5\%$ , in addition  $28.9 \pm 3.2\%$  of respondents had the second occupation in health organization.

More than 2/3 of the respondents  $(70.1 \pm 3.3\%)$  were in touch with the cardiology service. The need in cardiology and cardiovascular surgery for medical institutes of the FER was 57.9 ± 3.5% and 25.4 ± 3.1 % respectively and the need in both professionals was 18.3 ± 2.8%.

Each of the medical care levels in the FER has received more than 62% of positive opinion (3-5 points) with the largest number of them (70.6 ± 3.3%) at the level of therapeutic cardiovascular hospital and with the least amount of negative opinion  $(1.0 \pm 0.7\%)$  at the

federal level (Tabl. 1).

Only a quarter of respondents (25.4 ± 3.1%) were satisfied with the organization of cardiovascular care in the FER.. According to respondents, the fourth level of cardiovascular care (primary medical care) in the FER was worst organized (30.5 ± 3.3% of all respondents and 3/4 of the respondents dissatisfied with the situation of cardiovascular care in the region at any level). The level of specialized medical care, including high-tech medical care (HTMC) looks most advantageous: only 8.6 ± 2.0% of unsatisfied.

The presented poll included questions about the possibilities of improvement and restructuring of cardiac care. The third part (29.4 ± 3.3%) of respondents believed that the provision of a variety of medical facilities with consumables and equipment should be centralized under the compulsory medical insurance (25.9 ± 3.1%) for monitoring, planning and effective spending resources; as well as in HTMC (8.1 ± 1.9%). A fifth part of respondents (20.3 ± 2.9%) thought negatively about centralization of provision with medical equipment and consumables, they believed that a negative experience would be received. A significant number of respondents (49.7 ± 3.6%) couldn't answer this question.

82.7 ± 2.7% of respondents agreed with that improvement of physicians in cardiology would help change the situation in the field of prevention, diagnosis and treatment of CVD for the better. In addition,43.2 ± 3.2% of respondents were ready to send physicians to theme cardiology courses; 26.4 ± 3.1% of respondents had a need, but didn't have the financial and organizational possibilities for this. 44,2 ± 3,5% of respondents doubted the attainability of the WHO goal of reducing mortality from CVD by 25% by the year 2025 for the Russian healthcare.

#### Discussion

The most likely portrait of the health organizer in medical institutes of the FER were women (69.5%) of 41-60 years old (67.5%) working in district(53.8%) institutes in cities (79.7%) and in 28.5% of cases didn't have a specialization for health professionals.

Taking into account the needs (57.9%) and the presence of professionals in the staffing table (58.9%), most medical institutions of the FER (98.3%) needed cardiologists on staff positions. The need for cardiovascular surgeons was 2.2 times higher than the actual number of established posts in the FER (25.4% vs. 11.7%).

Medical care satisfaction results greatly differed using various approaches, for example evaluation as whole and separate components of the process. Some contradictions between them were noted (for separate components medical services satisfaction quotients (MSSQ) were from 63.5 to 70.5% and for evaluation as whole it was just over 25%). Respondents as consumers faced often with primary medical care, which was estimated most negatively (more than 30% of respondents). Such projection the most negative assessment of the components on the overall situation (and vice versa) in the result doesn't allow using generalized questions on topics in the analysis of respondents' opinions.

The federal Centers playa special role in HTMC service: they account for more than 71% of the total amount of HTMC, and among the most complex methods they account for more than 91% [4]. Since the Federal Center of Cardiovascular surgery(FCCVS) in the FER has started to work most of respondents (51.8%) noted the cardiovascular service in the region took a turn for the better.

Delegation of public authorities most of the financial obligations for public health at the level of subjects of the federation in terms of their economic inequalities resulted previously significant differences in the financing of necessary medical resources [3]. Of the 69.0% of the organizers, who have a need in the direction of physicians within their major field of study, 25.9% of all respondents didn't have the financial and organizational capabilities to send their practitioners to them cardiology courses. At the same time, 82.7% of respondents positively assessed this program of

Satisfaction with the medical care for CVD organization estimated by health officials of the FER

The level of care		Evaluation of satisfaction scores, p <0.05 (CI: 95.0%)					Difficult to answer
		1	2	3	4	5	answer
4	in a district clinic, %	2,5±1,1	18,3±2,8	37,1±3,4	25,4±3,1	5,1±1,6	10,2±2,2
3	in a therapeutic district hospital, %	1,5±0,9*	13,7±2,5	33,5±3,4	27,4±3,2	3,1 ±1,2	20,3±2,9
2	in a therapeutic cardiovascular hospital, %	1,0±0,7*	1,5±0,9*	19,8±2,8	38,6±3,5	12,2±2,3	26,9±3,2
1	in a cardiac surgery hospital,%	3,6±1,3	3,6±1,3	15,2±2,6	33,5±3,4	13,7±2,5	30,5±3,3
	in a Center for Cardiovascular Surgery, %	0,5±0,5*	0,5±0,5*	8,6±2,0	34,0±3,4	23,9±3,0	32,0±3,3

Note: \* The level of statistical significance was accepted as p>0,05.

professional improvement.

In spite of the positive feedback on the FCCVS functioning overall negative assessment of the Russian health care efforts prevailed. There is a lack of trust to the Ministry of Health in the region carried out the health reform.

The main proposals for improving the most problematic primary medical care were conducting competent personnel policy and the strengthening of work motivation (15.7% of all respondents); professional development in CVD as one of the most common pathologies among the population (15.2%); revision of the working time on medical examination of patients (7.1%).

The main proposals of respondents to reduce mortality from CVD were an implementation of adequate primary and secondary prevention and clinical examination (53.8%), access to free medical care for patients with CVD (13.2%), increasing social and economic attractiveness of the FER (9.7%), the availability of the examination of patients (9.1 %), increasing cardiovascular care at the prehospital level (6.6%), as well as standardization of the CVD management (5.6%). Such proposals as the growth of science and modern technologies in the CVD treatment and the development of rehabilitation services noted only 3.1% of respondents.

Proposals to improve the examination of patients and ensure them drugs were rather poorly represented in the opinion of the health organizers. Unfortunately, only 2.5% of respondents decided to pay attention to the development of science and modern technologies, as well as rehabilitation services for patients with CVD.

Thus, the opinion of the organizers and their proposals could be crucial in finding organizational solutions for

developing of cardiovascular care in FER, but «difficulties» in making management decisions by respondents in this poll alert: from24 to 50% of them found it difficult to answer questions about the possibilities of improvement and restructuring of cardiovascular care.

#### CONCLUSION

The passivity of the organizers of the FER in assessing the situation and making the potential of administrative decisions make a negative effect on the process of cardiovascular care to the population of the region. Analysis of executive personnel and health organizers sociological survey indicates the presence of institutional flaws and shortcomings in the management of the medical care system for patients with CVD, as well as the presence of underestimated problems of rehabilitation of these patients (including rehabilitation after HTMC). Insufficient financing continues to have a negative impact on the basic processes of the organization of cardiovascular care services and the level of provision of equipment facilities and qualified personnel, the availability of HTMC for population. None of these moments contribute to the social and economic attractiveness of the FER as one of the ways to reduce the mortality of CVD in the region. A comparative analysis of the views of patients, doctors, executive personnel and health organizers seems to be more informative and could allow identifying important problems and suggest solutions better.

#### References

1. Belenkov Y. V., Gorokhov S.G. Organizacija kardiologicheskoj pomoshhi v Rossii [Organization of cardiac care in Russia] Kardiologija: nacional'noe rukovodstvo / pod red. Ju.N. Belenkova, R.G. Oganova [Cardiology: national



guidelines / ed. Y.N. Belenkov, S.G. Oganov]. Moscow: GEOTAR Media, 2010, P. 18-37.

- Bokeria L.A., Gudkova R.G. 2. Serdechno-sosudistaja hirurgija - 2009. Bolezni i vrozhdennye anomalii sistemy [Cardiovascular krovoobrashhenija. surgery. Diseases and congenital anomalies of the circulatory system]. Yearbook, 2006-2013, Moscow: Bakoulev Center for Cardiovascular Surgery, 2009, p. 3-11.
- 3. Kovalev S.Y., Blum I.Y., Zaitseva I.N. Reformy sistemy zdravoohranenija Rossii: social'nye posledstvija kommercializacii [Health System Reform in Russia: the social consequences of the commercialization] Region: jekonomika i sociologija [Region: Economics and Sociology]. 2005, № 3, P. 58-67.
- 4. Skvorcova: federal'nye centry VMP dolzhny poluchat' sredstva [Skvortsova: naprjamuju federal HTMC centers should receive funds directly]. 03.03.2014 // Vademec.ru -Retrieved from: http://vademec.ru/news/ detail15848.html?print=Y (access date 10 Yule 2016).
- Tokareva Y. M. Primenenie 5. Swot - analiza dlja ocenki kachestva medicinskoj pomoshhi [Swot - analyzes

application to assess quality of medical care]: Cand. Soc. Sci., Volgograd, 2010, 122 p.

6. Ob utverzhdenii Metodicheskih rekomendacij «Organizacija provedenija sociologicheskogo (anketirovanija) naselenija oprosa ob udovletvorennosti dostupnost'ju i kachestvom medicinskoj pomoshhi osushhestvlenii objazateľ nogo strahovanija»: Prikaz medicinskogo FFOMS ot 29.05.2009 g. № 118 (v red. ot 26.04.2012 № 86) [On approval of the Methodological Recommendations «Organization of the opinion polling (questionnaire survey) for satisfaction with the accessibility and quality of medical care in the implementation of compulsory health insurance»: the Order of CHIFF on May 29, 2009 № 118 (as amended on 26.04.2012 № 86)] Tfoms22. ru - Retrieved from: http://www.tfoms22. ru/docs/prakazi-ffoms/29052009-118/ (access date 20 Yule 2016).

#### The authors:

Bogachevskaia Svetlana (Academic degree: Candidate of Medical Sciences, doctoral candidate)

Place of employment: the Federal Centre for Cardiovascular Surgery, Khabarovsk

Post: a Head of the functional and ultrasound diagnostics

Contact information: Krasnodarskaya str. 2v, Khabarovsk, Russia, Тел: (4212) 78-06-31

E-mail: bogachevskayasa@gmail. com:

Co-author: Kapitonenko Nikolay Alekseevich (Academic degree: Doctor of Medical Sciences, professor)

Place of employment: the Far Eastern State Medical University, Khabarovsk

Post: a Head of the Public Health and Healthcare Department, professor

Contact information: 680000 Muraveva-Amurskogo 35, Khabarovsk. Russia.

Тел.: (4212) 30-54-26, E-mail: ozd\_ fesmu@mail.ru;

Co-author: Bogachevskiy Alexander Place of employment: the Federal Centre for Cardiovascular Surgery, Khabarovsk, cardiac surgeon

Contact information: 680009 Krasnodarskaya str. 2v, Khabarovsk, Russia, e-mail: bogachevskiy@gmail.

