

ORGANIZATION OF OPHTHALMOLOGICAL CARE IN UKRAINE

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ABSTRACT

The aim: To consider the organization of ophthalmological care in Ukraine for cataract and glaucoma and find out whether it is appropriate to implement advanced good practices of reference countries for Ukraine.

Materials and methods: The method of desk review was used, supported by secondary analysis of data, in particular legislative acts. The research included conducting expert interviews with ophthalmologist of the public and private sectors, heads of public healthcare institutions, and management of the National Health Service of Ukraine. We also used materials on good practices from partners within the project ID 22120107 supported by Visegrád Fund.

Results: Since the burden of ophthalmological pathologies is increasing and processes of reforming the health care system are taking place, changes in the organization and financing of ophthalmological services are taking place. Within the framework of the partner project, "Access to healthcare services in the context of financing mechanisms. The case of ophthalmology" identified good practices in the organization of ophthalmological care in the context of improving access to services and improving quality. The results of interviews with key stakeholders led to the fact that the respondents generally support all the good practices proposed by the partner countries and indicate their arguments why the proposed practices are (not) appropriate to implement in Ukraine.

Conclusions: The organization and financing of healthcare in Ukraine still require the study and implementation of good practices so that patients can have access to quality services and treatment.

KEY WORDS: organization of ophthalmological care, financing, ophthalmology, good practices, DRG

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INTRODUCTION

For a long time in Ukraine, ophthalmological care was provided as only specialized medical care. Ophthalmological care, like all specialized medical care, was provided at all three levels. Medical care was provided by ophthalmologists in outpatient, specialized and highly specialized levels, such as the Institute of Eye Diseases and Tissue Therapy named after V.P. Filatov National Academy of Sciences of Ukraine.

Until April 1, 2020, the financing of the treatment of ophthalmological cases in the public sector was carried out according to the fixed budget method, which was calculated considering extensive indicators of the activity of providers (full-time positions of medical personnel, number of beds etc.).

The reform of the healthcare system in Ukraine began with the adoption of relevant legislation, in particular, the Law of Ukraine "On State Financial Guarantees of Medical Services for the Population" dated October 9, 2017, No. 2168-VIII [1]. The reformation of healthcare system in Ukraine started with the changes in primary care in 2018. The part of the functions of ophthalmic care were transferred to the primary level to the fam-

ily doctor. Within these changes, the National Health Service of Ukraine (NHSU) became a customer and healthcare service provider. The change in financing consisted in the transition to a capitation rate.

The financing reform was extended to secondary outpatient and inpatient care in 2020. Packages and specific tariffs of medical services were developed and implemented within the Programme of Medical Guarantees. In the same year, surgical treatment of patients with ophthalmological cases was included in the package of medical services "Surgeries for adults and children in hospital" [2-3]. In 2022, ophthalmological cases are included in the package "Surgeries for adults and children as a one-day hospitalization" [4].

Moreover, the lack of funding in recent years led to the fact that ophthalmological care was separated into a separate commercial component and many ophthalmological services provided by private suppliers. Also, in recent years, the burden of ophthalmological pathology has been increasing, and some diseases are becoming "younger" and affect the younger working population, for example, glaucoma and cataract. Cataract and glaucoma are one of the most common oph-

thalmic diseases, therefore they need special attention of the state, because they bear the greatest burden of ophthalmic diseases [5]. These processes are also prompting changes in the financing of ophthalmological care in the country.

This publication is based on research on best practices from reference countries on how to balance access to ophthalmological services and finance a healthcare system from state budget, in order to provide recommendations to stakeholders that can be used to address ophthalmological care challenges.

THE AIM

The purpose of the study is to review the organization of ophthalmic care in Ukraine, to outline the main gaps in the organization and financing of medical services for cataract and glaucoma. Also, the objectives of this study are to find out whether the identified good practices in the organization of ophthalmological care in Poland, Hungary, Slovakia and the Czech Republic contribute to improving access to medical care and improving the quality of medical care in the treatment of cataract and glaucoma in Ukraine.

MATERIALS AND METHODS

Based on a comprehensive desk review supported by secondary data analysis, we synthesize available information for further data collection in the country. Further work consisted of interviews with local stakeholders to address information gaps, gather ideas and determine the perception of the proposed good practices by representatives of different healthcare sectors. In the future, a briefing with key stakeholders is planned to share preliminary conclusions and recommendations regarding the implementation of good practices in the organization of ophthalmological care in Ukraine.

The source base of the analysis is decrees and materials of the Cabinet of Ministers of Ukraine, the National Health Service of Ukraine (NHSU), and the main legislative framework of the Ministry of Health of Ukraine (MoH). The following search terms were used: "healthcare reform in Ukraine", "organization of the healthcare system in Ukraine", "National Health Service of Ukraine", "program of medical guarantees", "ophthalmology in Ukraine" and "financial mechanisms of the healthcare system in Ukraine". It was analysed packages of the Programme of Medical Guarantees of 2020 [2], 2021 [3], 2022 [4] as follows: «Surgery for adults and children in hospital», «Outpatient secondary (specialized) and tertiary (highly specialized) medical care for adults and children, including medical rehabilitation and dental

care», «Surgeries for adults and children as a one-day hospitalization».

To determine the good practices of the reference countries, the materials developed by the partners from the scientific project "Access to healthcare services in the context of financing mechanisms. The case of ophthalmology", which is financed by the Visegrad Fund. The methodology for determining good practices is approved within the scope of the specified project.

In order to discuss the possibility of implementing good practices, we conducted 6 expert interviews with specialists in ophthalmology, in particular, ophthalmologist-surgeons from the public and private sectors, heads of public and communal health care institutions, the department of ophthalmology, as well as the head and management of the National Health Service of Ukraine. All expert interviews were conducted in accordance with all conditions of qualitative research methods, including interview recording, transcription, protection of the respondent's rights during the interview and was approved by Scientific Research Ethics Committee of National University of Kyiv-Mohyla Academy, Decree No. 3 dated July 7, 2022. All respondents gave informed consent for the use of their feedback for scientific purposes and publications.

RESULTS

The disease burden of glaucoma and cataract increases every year in Ukraine. From the management point of view, it is important to understand the clear mechanisms of the organization of ophthalmological surgical care. This needs special attention because cataract ranks first in Ukraine in terms of prevalence among ophthalmological diseases and remains not only one of the topical ophthalmological problems, but also an important medical and social problem. As of 2017, cataract prevalence rate is 448,474 patients among the entire population aged 0-100 years (1045.3 per 100 thousand population), the incidence rate is 109,217 (257.5 per 100 thousand population). In the age group of 18-100 years and older, the prevalence of cataracts is 429,931 (1,235.5 per 100,000 population), the incidence is 109,062 (313.4 per 100,000 population) [5].

About 220,000 people with glaucoma are registered in Ukraine, and about 20,000 new cases are detected annually. In 2017, at the age group of 18-100 years and older, the prevalence of glaucoma is 213,223 (612.7 per 100,000 population), the incidence is 17,934 (51.5 per 100,000 population) [5].

Statistical information on the prevalence and incidence of diseases, in particular cataract and glaucoma, is not collected since 2018, as the Order of the Ministry

Table I. DRG for cataract and glaucoma and the corresponding correction coefficients

Year	DRG code	DRG	Weight coefficient of DRG	Package	Tariff*
2021	C15	Surgical treatment of glaucoma and complex surgeries for the treatment of cataracts	0.593	Surgery for adults and children in hospital	4563.64 UAH / 148 EUR
2022	C15	Surgical treatment of glaucoma and complex surgeries for the treatment of cataracts	0.593	Surgery for adults and children in hospital	7506.00 UAH / 196 EUR
	C15-01	Surgical treatment of glaucoma and complex surgeries for the treatment of cataracts up to 24 hours	0.534	Surgery for adults and children within one-day hospitalization	7506.00 UAH / 196 EUR

*Note: In 2021, the share of the applied rate for the treated case for the period from April 1, 2022, to the end of December 2022 ranged from 5% to 15%. In 2022, it is planned that by the end of the financial year, the additional payment at the tariff (global rate) under the DRG will increase to 35% [7-9].

of Health of Ukraine №801802 dated November 10, 2018, abolishes a reporting form № 12 "Report on the number of diseases registered in patients".

An average of 65,883 cataract surgeries per year were performed in public and communal healthcare facilities (15.6 per 10,000 of adult population), of which 93.2% were cataract surgery with implantation of an artificial lens [5]. In the period 2010-2018, in the public and communal sector, cataract surgeries were provided mainly at an inpatient care level, the share of surgical interventions in outpatient conditions was only 7% (4,731 operations or 1.1 cataract surgeries per 10,000 adult population).

In the private sector, the situation is the opposite. In 2010, 70.4% of cataract surgeries were performed at an outpatient care level and up to 29.6% at an inpatient care level. The situation changed in 2020, 92.9% of all cataract surgeries were performed on an outpatient basis and 7.1% in hospital [5]. As the private sector is paid usually by fee-for-service, it focuses on surgical treatment only in the outpatient care level and 1-day hospitalization.

In the period 2010-2017, surgical treatment of glaucoma in public and communal health care institutions was carried out mainly in inpatient settings, with an average of 5,470 surgeries per year (1.31 per 100,000 population). According to the National Health Service of Ukraine, in 2021, 5,648 patients with glaucoma underwent surgical treatment, 74.2% of whom were 65 years old or older. As part of the Programme of Medical Guarantees, 1,595 "one-day" surgeries were performed in 2022 [6].

In private clinics, surgical treatment is provided to patients with glaucoma on an outpatient basis (6,184 surgical operations or 1.5 per 100,000 population in 2017) [5].

The principle of payment for specialized care, in particular ophthalmology, through the National Health Service of Ukraine is carried out using the DRG tool

with prioritization of one-day surgery or provision of services in an outpatient care level.

So, currently, the emphasis in cataract and glaucoma treatment is shifted to outpatient care. In 2022, a separate package "Surgery for adults and children within one-day hospitalization" is included in the Programme of Medical Guarantees, and the new DRG group C15-01 "Operations on the lens up to 24 hours" (weight coefficient is 0.458) is included in the list of diagnostic and related groups (Table I) [7-9].

Cataract and glaucoma care is provided as both inpatient and outpatient care, including one-day hospitalization, within the Programme of Medical Guarantees of the National Health Service of Ukraine. The calculated packages are far from the real financial costs and leave a large percentage of the financial burden for patients in medical treatment and obtained lenses of higher quality. We considered in detail the packages and tariffs 2020-2022 within the Programme of Medical Guarantees in our previous publication "Financing mechanisms of ophthalmological care in Ukraine: current state and main problems" (2022) [10].

Within the framework of the partnership project, "Access to healthcare services in the context of financing mechanisms. The case of ophthalmology", the results showed that each country has different practices in the organization of ophthalmological care. This allowed us to identify the main differences and identify good practices in organization of ophthalmological services. Good practice in this partnership project refers to actions taken by healthcare systems to ensure that care is provided at a level that meets healthcare system needs or to improve the quality of care. More details on good practices in the reference countries can be found in the final report of the project "Access to healthcare services in the context of financing mechanisms. The case of ophthalmology".

The results of our research showed that it is currently important for Ukraine to implement the following good practices:

1. Co-payment for different type of lenses, especially those with individual indicators, and determining the approximate price of lenses used to treat cataract and glaucoma. Not all government programmes can currently cover all cataract and glaucoma treatment costs of lenses, so there should be co-payments for certain types of lenses. Due to the high specificity, a very small percentage of toric and aniridia lenses are used, so that state programmes cover mainly average used lenses.
2. Involvement of the local state budget. Some treatment for cataract and glaucoma patients are already covered by local public programmes. For example, in the city of Kyiv, there is a programme "Health of Kyivans", which fully covers all consumables: lenses, knives, and medicines for surgery.
3. Introduction of financial limit mechanisms for cataract and glaucoma treatment. It is currently impossible to cover all treatment from the state budget, and there will be limits for patients. Currently, the state cannot cover all lenses within the Programme of Medical Guarantees. Also, the head of the National Health Service of Ukraine added that the plans for 2023-2024 are to include a review of pricing and allocation of individual services or medical products for which the patient will have to pay separately. The government is preparing a detailed list of to be paid services, which will be included in a separate Cabinet of Ministries Decree. It will be clearly understood what the state pays for and what patients should pay from out-of-pocket or as co-payment.
4. Expansion of the National List of Medicines (both original medicines and generics) and inclusion in the "Affordable Medicines" reimbursement programme all the medicines used in the treatment of glaucoma. Medicines for glaucoma treatment are expensive, not all patients can pay for them, so many patients stop treatment or try to find cheaper medicines, what can lead to blindness and disability, which then may become a burden on the state.

The results of interviews with key stakeholders among doctors, ophthalmic surgeons, managers of health care facilities and the National Health Service of Ukraine led to the fact that the respondents generally support all the good practices identified by the partner countries. Since the DRG system and the corresponding financing mechanisms are currently being implemented in Ukraine, clinicians do not yet see how good practices related to DRG can be implemented in Ukrainian health-care system, but they see the possibility of applying them at further stages of the system's development. Although, managers have a more present vision of how good practices can be applied and whether they are good for the system.

DISCUSSION

According to the results of the research, the stated goals were achieved. This research can be considered exploratory, since scientific publications in ophthalmology focus on the clinical side of the problem, and there are almost no publications covering the management and organization of ophthalmological care [5].

The structure of the ophthalmological service remains widely branched, moreover, in connection with the different subordination of health care institutions, both state and communal, there is no clear definition of the number of ophthalmological departments and polyclinic offices in the country. The country has an extensive network of private ophthalmology clinics, the data of most of which are not included in the statistical reporting for Ukraine as a whole. Accurate data apply only to public and communal ophthalmological institutions that provide specialized and highly specialized medical care. Therefore, challenges may arise when planning certain ophthalmological care in public healthcare facilities.

Research into the issues of finding solutions for the optimal organization and financing of ophthalmological care are becoming more and more relevant. In this context, studies based on the exchange of experience between reference countries are important.

This can be done through the exchange of experience between reference countries that have already gone through all the ways of establishing the organization of high-quality ophthalmological care and where the financing systems by the DRG is developed. Poland, Hungary, Czech Republic, Slovakia, and Ukraine face the same problems, but due to the lack of exchange of experience and good practices, some organizational issues are solved for a long time. The experience of sharing good practices is valuable and important, especially for Ukraine, because the transformational processes in the health care system and changes in financing mechanisms implemented over the past three years in the public sector require the study and implementation of advanced practices.

Thus, this research has shown that funding approaches in different countries may differ, but they are all aimed at improving the availability and quality of services. Since good practices in the provision of ophthalmological care were identified, and some of them found support among clinical practitioners from Ukraine, it makes sense to consider in more detail the possibilities of implementing such good practices in Ukraine in the future.

CONCLUSIONS

The results of the study showed that Ukraine has a high level of ophthalmic medical care that meets all modern

standards. However, the availability and financial protection of patients with ophthalmic pathology, in particular with cataract and glaucoma, is a big challenge. Therefore, the issue of improving the organization and financing of ophthalmological services in Ukraine requires special attention.

The results of interviews with key stakeholders among doctors, ophthalmic surgeons, managers of health care facilities and the National Health Service led to the fact that the respondents generally support all the good

practices identified by the partner countries. Since the DRG system and the corresponding financing mechanisms are currently being implemented in Ukraine, clinicians do not yet see how these good practices can be implemented in our health care system, but they see the possibility of applying them at further stages of the system's development. Although, managers have a more present vision of how good practices can be applied and whether they are good for the system.

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Conflict of interest:

The Authors declare no conflict of interest.

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