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EVALUATION OF PACKAGED FUNDING PROGRAMS FOR PALLIATIVE AND HOSPICE CARE BY THE NATIONAL HEALTH SERVICE OF UKRAINE

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Financing of Palliative and Hospice Care (PHC) for adults and children in Ukraine is carried out from the state budget under the Medical Guarantee Programs (MGP) by the National Health Service of Ukraine (NHSU). In the professional medical environment and in the Ukrainian society, an active discussion about the list of pathologies of adults and children that require PCD, about the availability of palliative care, the effectiveness of hospices, palliative departments, wards of specialized and multidisciplinary hospitals, mobile teams, "home hospices", the availability of effective analgesia, demand for euthanasia, Ukrainian society's readiness for it continues. An important practical issue of the PHC organization is the list of medical and related services that are needed by palliative patients and that are financed by the NHSU. Working groups of specialists invited by the NHSU for expert evaluation of the list of such services constantly make corrections to the list in accordance with the feedback that exists between the NHSU and medical institutions of Ukraine that have concluded contracts for the PHC provision. This review is devoted to the analysis of changes in the list of medical services for palliative patients in accordance with the MGP. Financing of medical services provided to Ukrainians by medical institutions under the MGP began in Ukraine in 2020, when more than 1,600 specialized medical institutions concluded contracts with the NHSU under MGP, which provided services worth more than 100 billion UAH, and 123.5 billion UAH in 2021. And in 2011–2019, only a few dozen medical institutions provided PHC in Ukraine. We concluded that the MGP and package financing of PHC by the NHSU significantly expanded the capabilities of medical institutions of Ukraine to provide such care and cover the majority of patients who need it. Medical facilities must fulfill the minimum requirements of a significant volume to obtain the right to provide palliative care for budget funds.

Keywords: *PHC, medical guarantee programs, NHSU, health care financing.*

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More than 40 million people in the world need Palliative and Hospice Care (PHC), and this need is constantly increasing due to the aging of the global population and the possibilities of modern medicine to extend people's lives to an age in which the number of incurable conditions is increasing [1; 2]. In the world, only 14% of palliative patients receive the help they need, which also corresponds to the calculations of Ukrainian researchers [2–4]. Ukraine seeks to expand the list of pathological conditions for which palliative care should be provided to patients in an inpatient setting or at home. Expanding the list of pathologies in accordance with WHO recommendations and best global practices will mean an increase in the need for financial resources. At the same time, PHC should be free for adults and children, and palliative care should be financed in accordance with Medical Guarantee Programs (MGP), according to which medical services, medicines and medical products are paid for from the state budget at the same rates for all medical institutions [5; 6].

National strategies for reforming the health care system envisage easing the financial burden on the population when paying for medical services [7; 8], for which it is necessary to eliminate unofficial payments, make a transition to a system of package financing by the National Health Service of Ukraine (NHSU), reform the outdated centralized system of payment for medical services, delegate the authority to manage medical facilities to local authorities, strengthen the development of the private medical sector, adhere to the principle "money follows the patient", give patients the right to choose doctors. Until 2014, the long-term reform of the health care system was ineffective and inconsistent [9–11], but after the Revolution of Dignity and the russian invasion of Ukraine, reforms were activated in many areas of the social sphere of Ukraine [12].

At the current stage, the reform of the health care system is associated with significant changes in the procedure for providing primary medical care and with the development of the institute of family medicine and the development of the electronic health system. According to the medical guarantee programs, primary medical care was supposed to occupy the second place among the items of health care system expenditures (26.58% of the total financing of the industry), and secondary (specialized) and tertiary (highly specialized) medical care – 60.91%. The third place should have been emergency medical care (6.47%). This was followed by reimbursement of medicines (4.29%), reserve funds (0.73%), medical rehabilitation (0.61%), and PHC (0.41%) [9]. An important indicator of the effectiveness of the reform was the number of signed declarations (*Table*).

Declarations with doctors were important for contacting medical services within the MGP. But patients can always get additional medical care at their own expense, if these services are not included in MGP packages. Financing of medical services provided to Ukrainians by medical institutions under the MGP began in Ukraine on April 1, 2020. In 2020, more than 1,600 specialized medical institutions concluded contracts with the National Health Service under MGP, which provided services worth more than 100 billion UAH from the beginning of the first quarter of 2020 to the end of the first quarter of 2021.

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Table. Quantitative analysis of declarations signed by patients with doctors in the regions of Ukraine as of January 1, 2020

Region	Number of population	Number of declarations	% of the population
Ukraine	42,153,201	29,142,060	69
Regions and cities			
Vinnytsia	1,560,394	1,300,182	83
Volyn	1,300,182	1,035,330	81
Dnipropetrovsk	3,206,477	2,424,089	76
Donetsk	4,165,901	1,346,728	32
Zhytomyr	1,220,193	972,876	80
Zakarpattia	1,256,802	934,844	74
Zaporizhzhia	1,705,836	1,292,605	76
Ivano-Frankivsk	1,373,252	1,075,586	78
Kyiv	1,767,940	1,464,527	83
Kirovohrad	945,549	682,741	72
Luhansk	2,151,833	467,711	22
Lviv	2,522,021	2,053,448	81
Kyiv city	2,950,819	1,948,791	66
Mykolaiv	1,131,096	796,668	70
Odesa	2,380,308	1,572,125	66
Poltava	1,400,439	1,114,384	80
Rivne	1,157,301	924,436	80
Sumy	1,081,418	872,520	81
Ternopil	1,045,879	818,870	78
Kharkiv	2,675,598	2,049,134	77
Kherson	1,037,640	764,868	74
Khmelnytsk	1,264,705	1,023,824	81
Cherkassy	1,206,351	930,636	77
Chernivtsi	904,374	682,533	75
Chernihiv	1,005,745	7,907,417	79

The MGP budget for 2021 is already 123.5 billion UAH. In order to conclude a contract with the NHSU, the medical institution must obtain the status of autonomous, for which the collective agreement between the manager and the medical workers must state that the medical institution independently disposes of the funds received from the NHSU and independently determines the number of wages of the employees. This approach already in the first year of work of MGP made it possible to increase the salaries of medical personnel by 30%, to the amount of more than 17 thousand UAH in ophthalmological institutions, 15 thousand UAH – in phthisiopulmonary institutions, 14 thousand UAH – in narcological institutions, and more than 13.5 thousand UAH in oncology institutions. In general, the use of MGP to finance health care programs since 2018 allowed to increase the number of primary care doctors by 1.5 thousand, and secondary care by 3 thousand [13].

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PHC as a type of care has been provided in Ukraine since 2011, but before the inclusion of this type of care in the list of MGP by the NHSU, it was provided by only a few dozen medical institutions: 7 hospices, 2 specialized palliative care centers, about 100 palliative care departments, several volunteer mobile services. After April 1, 2020, PHC began to provide 413 fixed and 203 mobile services. Over the year, the number of such medical facilities increased to 736. At the same time, 613 medical facilities declared their readiness to provide inpatient palliative care, 486 – mobile palliative care. The tariff for providing mobile palliative care to one patient amounted to 14,066 UAH, inpatient care – 13,129 UAH. These funds should be spent by medical institutions on the medical component: pain relief and other symptomatic therapy. To pay for the services of the social component, which also has a significant impact on the quality of life of palliative patients, there are separate packages within which the work of social workers is paid. The first packages of inpatient palliative care included the following steps: assessment of the patient's condition and preparation of an examination plan, pain treatment with the use of non-narcotic and narcotic analgesics, round-the-clock medical observation and nursing care, pharmacotherapeutic, surgical, physiotherapeutic and other types of palliative symptomatic treatment, oxygen therapy and respiratory support, medical nutrition, physical therapy, psychological rehabilitation, training of relatives of the patient in care [14].

Visits of mobile teams of palliative patients at home should take place at least once a week. A medical institution that contracts for palliative medical care must establish a telephone line for consultations and an urgent call of the team to the home and ensure its 24-hour operation. A medical institution that contracts for inpatient palliative care must independently perform all clinical and instrumental examinations necessary for palliative patients (without referring to other medical institutions), organize oxygen supply, respiratory support (according to statistics, 37% of palliative patients with stroke need this, 54% – with oncological diseases in the terminal stages, 60% – with cardiovascular diseases [14–17]). The provision of these medical services meets the WHO requirements for palliative care institutions. A patient must be admitted to an institution that provides PHC free of charge with a referral from a family doctor or a doctor of another specialty. It is also possible to transfer from another medical institution or clinical unit of the institution [18].

The list of laboratory tests for MGP includes extensive clinical blood analysis; blood test and group and Rh factor; biochemical blood analysis with determination of glucose, glycosylated hemoglobin, total protein, albumins, globulins, alpha-amylases, aspartate aminotransferases, alanine aminotransferases, total bilirubin and its fractions (direct and indirect bilirubin), creatinine, uric acid, electrolytes (potassium, chlorine, sodium, magnesium, iron, ferritin, transferrin, total iron-binding capacity of blood serum), lipoprotein profile with determination of the levels of triglycerides, total cholesterol, low- and high-density lipoproteins; blood test for the presence and level of rheumatological and acute phase indicators (rheumatoid factor, sialic acids, C-reactive protein, antistreptolysin O; coagulograms with determination of thrombin time, activated partial thromboplastin time, fibrinogen; analysis of cerebrospinal fluid; analysis general urine; urine microalbumin determination; bacteriological studies. The list of instrumental studies includes: electrocardiogram; ultrasound examination; X-ray. Effective analgesia within MGP allows the use of narcotic drugs, psychotropic sub-

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stances and precursors. They should be provided round-the-clock access. Palliative patients, able to move independently, should be provided with assistive devices for mobility (canes, crutches, walkers, and wheelchairs). Visitor access to the palliative patient in medical institutions should be provided 24 hours a day [19].

To create multidisciplinary teams to provide palliative care services to medical institutions, constant cooperation with other hospitals, social services, public and religious organizations, and local authorities is necessary. Employees of palliative departments, wards, hospices and mobile teams need training in communication, pain assessment and analgesia, symptomatic therapy, care. Infection control of the work of such specialists and teams must necessarily take into account the issue of SARS-CoV-2/COVID-19 prevention, and the need for narcotic analgesia – the requirements of national legislation regarding the use of strong and narcotic drugs, in particular, the medical institution must have a license to carry out activities with circulation of narcotic substances and precursors [19–21].

A medical institution providing PHC should have a sufficient number of doctors, middle and junior medical staff, as well as the following medical equipment: a ventilator connected to a centralized oxygen supply system or an oxygen concentrator (at least one per 2 beds); laryngoscope and endotracheal intubation tubes; multichannel electrocardiograph; monitors for heart rate, electrocardiograms, blood pressure, SpO_2; portable defibrillator; pulse oximeter (minimum 10 per facility); glucometer with test strips (minimum 5 per institution); non-contact thermometer; tonometer (minimum 6 per institution); device for enteral nutrition with consumables for it (minimum 3 per institution); an Ambu-type breathing bag with an oxygen tube (minimum 2 per facility); aspirator (suction) device (minimum 5 per institution); automatic medicine dispenser (minimum 5 per institution); ultrasonic inhaler (minimum 3 per institution); functional beds and anti-bedsore mattresses, means for moving and lifting patients (rollers) for all patients. In order to organize mobile teams, contracting institutions of the NHSU need to have transport to reach patients, a full-time social worker who can be hired at the expense of local budgets, a portable electrocardiograph, tripods for infusions (droppers), cooler bags, first aid kits for providing emergency care and other equipment listed above [18; 22].

Conclusion

The program of medical guarantees and package financing of palliative care by the National Health Service of Ukraine significantly expanded the capabilities of medical institutions of Ukraine to provide such care and cover the majority of patients who need it. Medical facilities must fulfill the minimum requirements of a significant volume to obtain the right to provide palliative care for budget funds.

There is no **conflict of interest**.

References

1. Palliative care. Key facts. WHO, 5 Aug 2020. Available at: https://is.gd/o0NtI8

2. Assessing national capacity for the prevention and control of noncommunicable diseases: report of the 2019 global survey. Geneva: World Health Organization; 2020. 101 p. Available at: https://www.who.int/publications/i/item/9789240002319

3. Nesterenko VG. The need for palliative and hospice care in Ukraine in 2018–2020. Medicine Today and Tomorrow. 2021;90(3):43-52. DOI: 10.35339/msz.2021.90.3.nes [in Ukrainian].

ISSN print 2414-4517, ISSN online 2710-1487, https://ecm.knmu.edu.ua, ekm.journal@knmu.edu.ua

4. Nesterenko VG. Forecasting the need for palliative and hospice care in Ukraine for 2021–2022. Experimental and Clinical Medicine. 2021;90(4):25-34. DOI: 10.35339/ekm.2021.90.4.nes [in Ukrainian].

5. Holovanova IA, Shevchenko AS. The issue of patient-oriented organization of palliative and hospice care in Ukraine. Experimental and Clinical Medicine. 2021;90(2):21-7. DOI: 10.35339/ekm.2021.90.2.hos.

6. Huzii O. Patient-oriented statistics and palliative care in Ukraine. Ukrainian medical journal. Available at: https://api.umj.com.ua/wp/wp-content/uploads/2017/08/Paliativ.pdf [in Ukrainian].

7. National strategy for reforming the healthcare system in Ukraine for the period 2015–2025 (2014 project). Available at: https://ips.ligazakon.net/document/NT1138 [in Ukrainian].

8. Chornyi OV. Peculiarities of reforms in public health care policy in European countries in the transformation period: historical and socio-economic aspects. Public administration and customs administration. 2020;3(26):78-82. DOI: 10.32836/2310-9653-2020-3.12. [In Ukrainian].

9. Krynychko LR, Liakhovych HI. Assessment of the consequences and results of health system reform in Ukraine. Public administration: improvement and development. 2020;(4):8p. DOI: 10.32702/2307-2156-2020.4.67. [In Ukrainian].

10. Lehan VM, Kryachkova LV, Zayarsky MI. Analysis of health care reforms in Ukraine: from gaining independent to the present. Ukraine. Nation's Health. 2018;4(52):5-11. Available at: https://is.gd/0ZXFOm [in Ukrainian].

11. Krynychko L. Stages of reforming the healthcare system in independent Ukraine. Litopys Volyni [Chronicle of Volyn]. 2021;(22):104-11. DOI: 10.32782/2305-9389/2020.22.17. [In Ukrainian].

12. Shevchenko VV. The reform of the higher education of Ukraine in the conditions of the military-political crisis. International Journal of Educational Development. 2018;65:237-53. DOI: 10.1016/j.ijedudev.2018.08.009.

13. Ustinov OV. Implementation of the Medical Guarantee Program in 2020. Ukrainian Medical Journal, 1 Apr 2021. Available at: https://www.umj.com.ua/uk/novyna-203097-realizatsiya-programi-medichnih-garantij-u-2020-r [in Ukrainian].

14. Ustinov OV. Palliative care in the Medical Guarantee Program-2021. Ukrainian Medical Journal, 5 Apr 2021. Available at: https://www.umj.com.ua/uk/novyna-203364-paliativna-dopomoga-u-programi-medichnih-garantij-2021 [in Ukrainian].

15. Cowey E, Schichtel M, Cheyne JD, Tweedie L, Lehman R, Melifonwu R, Mead GE. Palliative care after stroke: A review. International Journal of Stroke. 2021;16(6):632-9. DOI: 10.1177/17474930211016603.

16. Anzai T, Sato T, Fukumoto Y, Izumi C, Kizawa Y, Koga M, et al. JCS/JHFS 2021 Statement on Palliative Care in Cardiovascular Diseases. Circulation Journal. 2021;85:695-757. DOI: 10.1253/circj.CJ-20-1127.

17. Variations in Place of Death in England. Inequalities or appropriate consequences of age, gender and cause of death? UK: National End of Life Care Intelligence Network; 2010. 88 p. Available at: https://is.gd/me0gTI

18. Ustinov OV. PMG-2021 requirements: mobile palliative care. Ukrainian Medical Journal, 19 Mar 2021. Available at: https://www.umj.com.ua/uk/novyna-202089-vimogi-pmg-2021-mobilna-palativna-dopomoga [in Ukrainian].

ISSN print 2414-4517, ISSN online 2710-1487, https://ecm.knmu.edu.ua, ekm.journal@knmu.edu.ua

19. Ustinov OV. Project of PMG requirements for 2021: inpatient palliative care. Ukrainian Medical Journal, 25 Sep 2020. Available at: https://www.umj.com.ua/uk/novyna-189211-proyekt-vimog-pmg-na-2021-rik-statsionarna-paliativna-dopomoga [in Ukrainian].

20. International Narcotics Control Board (UN). Precursors and Chemicals Frequently Used in the Illicit Manufacture of Narcotic Drugs and Psychotropic Substances: Reports E/INCB/2019/1-4 for 2019. Vienna: UN, 2020. 502 p. Available at: https://is.gd/5ZxuiO [in English, French and Spanish].

21. WHO guidelines for the pharmacological and radiotherapeutic management of cancer pain in adults and adolescents. Geneva: World Health Organization; 2018. 142 p. Available at: https://www.who.int/publications/i/item/9789241550390

22. Order of the Ministry of Health of Ukraine No.1308 on 4 Jun 2020 "On improving the organization of palliative care in Ukraine." Legislation of Ukraine. Verkhovna Rada (Parliament) of Ukraine. In force on 20 Dec 2021. Available at: https://zakon.rada.gov.ua/laws/show/z0609-20#n7 [in Ukrainian].

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ОЦІНКА ПРОГРАМ ПАКЕТНОГО ФІНАНСУВАННЯ ПАЛІАТИВНОЇ ТА ХОСПІСНОЇ ДОПОМОГИ НАЦІОНАЛЬНОЮ СЛУЖБОЮ ЗДОРОВ'Я УКРАЇНИ

Фінансування паліативної і хоспісної допомоги (ПХД) дорослим і дітям в Україні здійснюється із державного бюджету за програмами медичних гарантій (ПМГ) Національною службою здоров'я України (НСЗУ). У професійному медичному середовищі та українському суспільстві продовжується активна дискусія про перелік патологій дорослих і дітей, які потребують ПХД, про доступність паліативної допомоги, ефективність роботи хоспісів, паліативних відділень і палат спеціалізованих та багатопрофільних лікарень, мобільних бригад, «хоспісів на дому», доступність ефективного знеболення, затребуваність евтаназії, готовність до неї українського суспільства. Важливим практичним питанням організації ПХД є перелік медичних та супутніх ним послуг, яких потребують паліативні хворі та які фінансуються НСЗУ. Робочі групи фахівців, яких запрошує НСЗУ для експертної оцінки переліку таких послуг, постійно вносять корективи до переліку відповідно до зворотного зв'язку, який існує між НСЗУ та лікувальними закладами України, що уклали договори на надання ПХД. Цей огляд присвячений аналізу змін переліку медичних послуг паліативним хворим відповідно до ПМГ.

Ключові слова: *ПХД, програми медичних гарантій, НСЗУ, фінансування охорони здоров'я.*

Голованова И.А., Шевченко А.С.

ОЦЕНКА ПРОГРАММ ПАКЕТНОГО ФИНАНСИРОВАНИЯ ПАЛЛИАТИВНОЙ И ХОСПИСНОЙ ПОМОЩИ НАЦИОНАЛЬНОЙ СЛУЖБОЙ ЗДОРОВЬЯ УКРАИНЫ

Финансирование паллиативной и хосписной помощи (ПХП) взрослым и детям в Украине осуществляется из государственного бюджета по программам медицинских гарантий (ПМГ) Национальной службой здоровья Украины (НСЗУ). В профессиональной медицинской среде и украинском обществе продолжается активная дискуссия о перечне патологий взрослых и детей, нуждающихся в ПХП, о доступности паллиативной по-

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мощи, эффективности работы хосписов, паллиативных отделений и палат специализированных и многопрофильных больниц, мобильных бригад, «хосписов на дому», об эфективном обезболивании, востребованности эвтаназии, готовности к ней украинского общества. Важным практическим вопросом организации ПХП является перечень медицинских и сопутствующих им услуг, в которых нуждаются паллиативные больные и которые финансируются НСЗУ. Рабочие группы специалистов, которых НСЗУ приглашает для экспертной оценки перечня таких услуг, постоянно вносят коррективы в перечень в соответствии с обратной связью, существующей между НСЗУ и лечебными учреждениями Украины, заключившими договоры на предоставление ПХД. Этот обзор посвящен анализу изменений перечня медицинских услуг паллиативным больным в соответствии с ПМГ.

***Ключевые слова**: ПХП, программы медицинских гарантий, НСЗУ, финансирование здравоохранения.*

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