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**ANALYSIS OF THE FEATURES OF THE ORGANIZATION
OF PHARMACEUTICAL CARE IN THE COUNTRIES
OF THE WORLD AND MOROCCO**

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To date, there is no single term for "Pharmaceutical Care". Each country has a different understanding of pharmaceutical care, which is due to the peculiarities of each country's approach. In the USA, most of the counseling work is done by consultant pharmacists. pharmaceutical care in Ukraine is a comprehensive program of interaction between pharmacist and patient, pharmacist and physician throughout the entire period of drug therapy. Morocco has adopted a system of compulsory health insurance, which has led to the growth and development of the pharmaceutical market.

Keywords: pharmaceutical care, pharmacist; pharmacy

Introduction. The basic principles of modern pharmaceutical care were formulated in 1989 by American scientists Helper K.D. and Strand L.M. The main goal of pharmaceutical care is to ensure that drug therapy is reliable to achieve a specific outcome that will improve the patient's quality of life. Providing pharmaceutical care to pediatric and geriatric patients requires a scientific approach that forces every pharmacist to use all aspects of their pharmacy education.

The **purpose** of this paper is to analyze the conditions of modern pharmaceutical care in Morocco.

The **materials** were Moroccan laws and regulations; information resources on the development of medical and pharmaceutical care in the country; and a public health website. The study used such **methods** as: historical, retrospective, content analysis, comparative, analytical, logical, economic and statistical.

Research results. Pharmaceutical care is a philosophy of practice in which the patient is the primary beneficiary of the pharmacist's actions. Pharmacists are members of the health care team focused on the core value of human life. Through medication management, they promote appropriate medication use and limit unintentional harm caused by medications. Pharmaceutical care, which can be defined as the digital delivery of responsible pharmaceutical care to achieve outcomes that positively impact a patient's quality of life. Optimal pharmaceutical care is supported by a personal health record, which is an electronic application that helps the patient or their representative to store and manage all the patient's health data in a confidential and secure environment. This chapter also discusses the principles of adherence to treatment and possible approaches to addressing non-adherence [1].

In modern conditions, the problem of improving pharmaceutical care can be solved in two directions, which are presented in Fig.

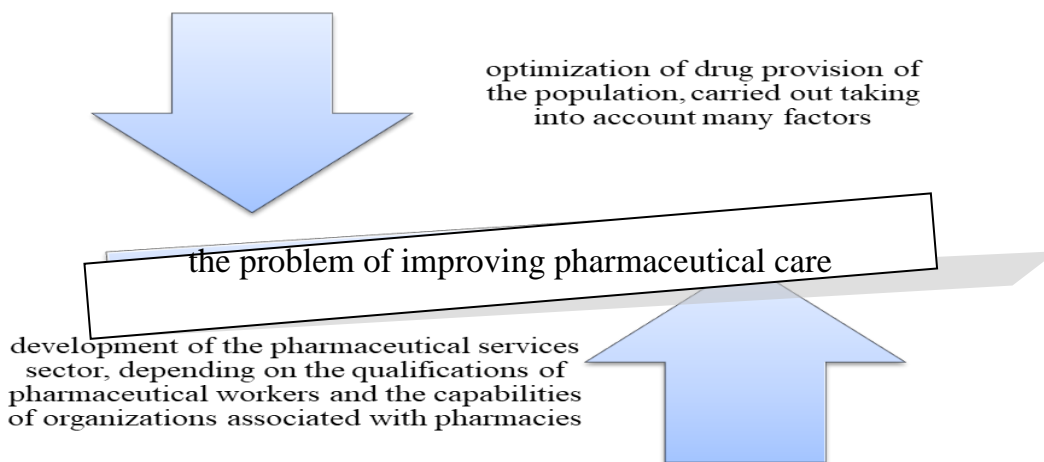


Fig. The main directions for improving pharmaceutical care

Currently, the new professional roles of pharmacists require new professional standards defining the quality and safety of pharmaceutical activities. WHO and FIP have developed and published international guidelines to improve the quality of pharmacy services. Over the past four decades, the philosophy of pharmaceutical care and standards of good pharmacy practice have been continually expanded and

supplemented, providing a wide range of national professional standards (Australia, Canada, USA and UK). International initiatives to assess pharmacy services provide data on service distribution and quality measurement tools (EDQM Quality Metrics Project, PCNE surveys) [2, 3].

It should be noted that to date there is no single definition of the term "Pharmaceutical Care". Each country has its own understanding of pharmaceutical care [4].

In the United States, consultant pharmacists do most of the counseling work. In addition to their core business, they also provide their professional services to health care, elder care and disability care facilities. A pharmacist chooses his or her own place of work: medical facilities of any profile, a contract in a pharmacy or other organization providing pharmaceutical services. A pharmacist in the country has the opportunity to work individually. Family pharmacist can serve individual citizens and members of their families, advise and supervise treatment, give recommendations on disease prevention and healthy lifestyle. In the United States, there is a "home care pharmacy." These pharmacies employ several pharmacists who provide the following services:

- patient care in both outpatient and inpatient settings,
- home delivery of medications [5].

Specialists have access to medical history, which prevents duplication of similar medicines and interactions between them. In the United States, the clinical pharmacist provides a second signature on the physician's prescription because without his or her signature, the prescription is invalid, and both professionals are legally liable [6].

In the UK, a new century pharmacy project, Pharmacy 2020, has been developed that focuses on the role of pharmacy professionals as clinicians. The project program includes the following methods:

- weight loss,
- substance misuse prevention,
- smoking cessation and overweight assistance

Long-term programs are being developed to improve the quality of life and health of the population [7].

A peculiarity of the organization of pharmacy care in the country is the rules for storing medicines at home. British engineers together with pharmacists have developed a special container ("child-proof container") in which a certain number of medicines can be stored, which is inaccessible to children. Pharmacies also have special equipment for the disposal of unused medicines brought by patients [7].

In France, a feature of the organization of pharmaceutical care is the existence of compulsory health insurance supported by private health insurance services. According to the report "Global Use of Medicines 2022. Prospects to 2026" by the analytical company "IMS Health", France occupies the middle position among the leading EU-5 countries in terms of per capita consumption of medicines. In developed countries – upper-middle or high-income countries – it is expected to grow by 2-5 % until 2026, as it has done in the last five years [8]. About 97 % of French people self-medicate. All these factors place a special responsibility on pharmacists to counsel patients when dispensing medicines [6].

In Scotland, the specificity of pharmaceutical care implementation is in the provision of home-based care for older people. One of the tasks of the NHS and the Scottish Government today is to develop a national educational framework to prepare pharmacists for this work. Pharmaceutical workers should know the specifics of caring for a certain category of people.

Latvian pharmacies are rapidly developing additional services for customers:

- blood pressure measurement,
- measurement of cholesterol and blood sugar levels;
- since 2009, collection points for expired medicines have been organized;
- pharmacies open doctors' offices, which have full information about the availability of medicines in the pharmacy, which speeds up and facilitates the process of patient's treatment [5].

In South Africa, the specifics of pharmaceutical care organization include developed standards for pharmacists that include the following roles and responsibilities:

- Establishing the reason for contacting the pharmacy;
- providing information on the correct and safe use of medicines and medical devices;
- analyzing the patient's medical history;
- recommending patient referrals to other specialists (if necessary);
- identifying the patient's symptoms and signs of illness;
- working with the patient to develop an appropriate treatment plan;
- Participating in the education and training of the public and health care professionals in the care of not only humans but also animals;
- promoting the rational use of medicines and a healthy lifestyle [9].

In Ukraine, pharmaceutical care is a comprehensive program of interaction between pharmacist and patient, pharmacist and physician throughout the entire period of drug therapy, from the moment of drug dispensing to its complete discontinuation. In this case, the pharmacist assumes responsibility to a particular patient for the result of treatment with the recommended drug [4, 5, 10].

The Ministry of Health of Ukraine together with SE "State Expert Center of the Ministry of Health of Ukraine" and the National Pharmaceutical University updated protocols for pharmacists when receiving medicines from pharmacies and their structural subdivisions. Order of the Ministry of Health of Ukraine № 7 dated 05.01.2022 "On Approval of Protocols for Providers" approved 36 protocols for pharmacists on pharmaceutical care [11]. Today they are the main source of information for pharmaceutical specialists.

In the range of pharmacies in Morocco: abortifacients are prohibited; extemporaneous medicines are divided into mainstream, official, specialty, hospital; personal care products and cosmetics contain biologically active substances and are classified as medicines; the sale of chemical reagents is allowed through pharmacies. The main regulation governing the industry is Dahir (Royal Law) 17-04 "Code of Medicines and Pharmacy" 2006; pharmacies opened before the new regulation are governed by the old legislation [13]. Currently, about 10 % of medicines produced in

Morocco are exported, usually to African countries. By 2023, it is planned to increase exports of pharmaceutical products to 1 billion US dollars [12]. Morocco's pharmaceutical market grew by 6% between 2013 and 2014. Unfortunately, from 2020 onwards, the annual growth of the market does not exceed 2.2%.

The Moroccan pharmaceutical industry markets about 4,000 drugs, of which 80% are produced locally. The pharmaceutical industry saves Morocco an average of 1.5 billion dirhams per year through local production. The pharmaceutical industry meets almost all of its needs through local production, with more than 411 million units [13].

Morocco exports nearly 10% of its production in drugs, of which a good part towards the Western and European countries. Over the past 10 years, Moroccan drug exports have increased by 21 %. 150 items are exported annually to 33 countries in West Africa and Europe with a turnover of 909 dirhams.

The national sales are of 12 billion dirhams. It takes part for 2 % in the Moroccan GDP. An average annual of investment of 300 million dirhams is required to improve the quality and reach the European standard [13].

Unfortunately, the annual growth of the pharmaceutical sector is only about 2% per year, instead of double digits a decade ago, due to the deteriorating international and national economic situation [13].

All pharmacists practicing in pharmaceutical companies are represented by COPFR (Council of Pharmacists) working in the pharmaceutical industry and distribution. This institution controls access to the pharmaceutical profession for those who provide PhC to the public. COPFR provides an advisory opinion on pharmacists' applications to join the pharmaceutical industry and to open, expand or change pharmacies and pharmaceutical facilities.

To increase pharmaceutical care, the Moroccan government more than 17 years ago – in 2006 introduces measures such as: compulsory health insurance and health care regimen. But unfortunately, these radical measures have not led to an increase in demand for medicines [13].

Despite encouraging economic growth, the country's external public debt remains at more than 19 billion dollars, and a third of Africans do not earn more than 300 dollars a year. About 5,000,000 people still have an income of no more than 1 dollar a day, and social payments cover only 1/5 of the Moroccan low-income residents. Health care costs are minimal. To date, medical care is not available to 90% of the local population, and about 60 % continue to live in the absence of drinking water and electricity [13].

According to the High Commission for Planning, the growth rates of the Moroccan economy increased from an annual average of 4.8 in the period 2000-2009 up to 3,5 % in the period 2019-2023 – 2,8 % and are characterized by a low level of employment [12, 13].

Today, in the country, 70 % of the pharmaceutical market consumption is from local pharmaceutical companies and the remaining 30 % is mainly imported from Europe, especially from France. The main companies in the Moroccan pharmaceutical sector include: COOPER MAROC, MAFAR, SANOFI MAROC, SOTEMA, LAPROFAN. Currently, generics and biosimilars account for 80-90% of the public drug market and only 25 % of the private market. The OTC sector will face similar competition from generics and is expected to shrink to 22.8 % in 2026. Pharmaceutical sales currently account for about 1.47 % of Morocco's GDP and 24.4 % of total health expenditure in Africa. GDP in 2020: US\$114.725 billion; GDP per capita: US\$3,009; GDP growth rate: -6.29 %. The slowdown in economic activity reflects weak productivity growth and limited diversification of growth factors in various sectors of the economy, including the pharmaceutical sector.

Conclusions

At the end of the twentieth century American scientists Helper K.D., Strand L.M. proposed a new concept of pharmaceutical care, focused on a comprehensive solution to the problems of optimization of drug supply and development of pharmaceutical services. It should be noted that to date there is no single definition of the term "pharmaceutical care". Each country has its own understanding of pharmaceutical care.

In South Africa, the peculiarities of the organization of pharmaceutical care include the developed standards for pharmacists, which include: establishing the reason for contacting the pharmacy; providing information on the correct and safe use of the drug; analysis of the patient's medical history. Today, there are 5 major pharmaceutical companies operating in the country: COOPER MAROC, MAFAR, SANOFI MAROC, SOTEMA and LAPROFAN. All Moroccan pharmacists practicing in pharmaceutical companies are represented by COPFR (Council of Pharmacists) working in the pharmaceutical industry and distribution. This institution controls access to the pharmacy profession for those who provide pharmaceutical care to the public.

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Анотація

На сьогодні не існує єдиного термінологічного визначення «фармацевтична допомога». У кожній країні існує своє розуміння, що пов'язано з особливостями підходу кожної країни. У США більшу частину консультативної роботи виконують фармацевти-консультанти. Фармацевтична допомога в Україні — це комплексна програма взаємодії фармацевта й пацієнта, фармацевта й лікаря протягом усього періоду лікарської терапії. У Марокко було прийнято систему обов'язкового медичного страхування, що призвело до зростання і розвитку фармацевтичного ринку та фармацевтичної опіки.

Ключові слова: фармацевтична допомога, фармацевт, аптека