

The need to introduce a formulary system in Armenia

Ani A. Chakhoyan, Albert E. Sahakyan

**Yerevan State University, Institute of Pharmacy, Chair of Pharmtechnology and
Pharmacy Economics and Management, Yerevan, 0025, 1 Alex Manoogian, Armenia,**

ORCID: 0000-0003-2404-8124

Abstract

In many countries, including Armenia, drug provision is a key health care problem. Research indicates that financing for drug provision is often used ineffectively. To address this, the World Health Organization is promoting policies to introduce and improve formulary systems, which serve as tools for the effective use of drugs. In Armenia, there has been a lack of research and policy implementation in this area. Consequently, a study was conducted to confirm the necessity and usefulness of the formulary system in Armenia.

Keywords: rational use of drugs, formulary system, formulary list, health insurance.

In countries, the share of expenditure on drugs in the national health budget varies from 10% to 40%. Some studies show that 88% of the funds allocated to drug provision are, in fact, "wasted", which indicates the need for qualitative changes in the drug provision system [1,2,3].

The World Health Organization (WHO) implements a wide-ranging policy to implement the principles of effective drug use. The analysis of the measures carried out by the WHO in that direction showed that although most of the countries are working to implement certain programs to increase the efficiency of drug use, in recent years there have been no significant improvements in the process of drug use in most countries, and the ineffective use of drugs continues to remain a serious problem [4,5].

WHO experts emphasize and believe that the main tool for effective use of drugs is the implementation and improvement of the formulary system [6].

The formulary system, being a tool for effective use of drugs, is not introduced in Armenia. The introduction of the formulary system in Armenia can solve a number of problems. As such, there are no targeted researches on the effective use of drugs in Armenia and there are a number of problems:

- hospitals buy and use weakly effective drugs,
- expensive drugs are bought and used, despite the fact that there are cheaper generics on the market,
- there are a large number of registered drugs with the same therapeutic substance on the market,
- doctors are guided by old medical guidelines and their own "drug list" when prescribing drugs.

Studies of the scientific literature on the formulary system have shown that the introduction of the formulary system and the correct use of the formulary list can lead to significant savings in the drug budget of the health care system of a given country by limiting the purchase of ineffective drugs, by reducing the number of drugs that require high costs in transport and storage plan. In addition, ineffective and low-quality drugs are being squeezed out of the market, drugs with unproven and questionable clinical efficacy are excluded from the procurement process. The use of the formulary system in clinical activities makes it possible to reduce the duration of treatment, as a result of which not only the work of the medical institution increases, but also the economic efficiency of the country. In many countries, the use of methods of pharmacoconomics, ABC, VEN, frequency, ATC/DDD, DU90% has yielded positive results not only in the implementation of formulary system, but also in the processes of drug procurement in the health care system, with an emphasis on essential, safe and cost-effective drugs. It is also important to use the ATC/DDD methodology when studying the demand for drugs, which provides effective data for compiling a formulary list of drugs [7-10].

As a result, by including in the formulary only those drugs whose effectiveness has been proven, which are safe, of high quality and cost-effective, they are mainly generics, and the purchase of "duplicates" of drugs is excluded, while the process of drug provision is simplified. All this, in turn, facilitates the work of the attending physician, reduces the number of medical errors and complications in drug treatment, thereby improving public health indicators. On the other hand, the introduction of formulary system limits the clinical freedom of the doctor, since many doctors use a limited list of their preferred drugs. However, such a personal "form" is unlikely to be more optimal in terms of its clinical and economic effectiveness than the formulary list, which is being developed by specialists in the field of medical sciences.

Formulary system is an effective tool for private insurance companies, plays a significant role in the case of compulsory health insurance, contributing to the solution of a number of problems.

Discussions about the mandatory health insurance system in Armenia are still at the stage of concept development. Taking into account the current situation and problems, the international comparative evaluation of Armenia's health care financing system and observations regarding cost-effective programs, in 2019 a draft decision "On approving the concept of introducing comprehensive health insurance in the Republic of Armenia" was proposed. The need for its adoption was justified and it was a goal pursuit to create a sustainable healthcare financing system, which should ensure financial access and protection of basic medical services for all groups of the population. As a result of the research carried out within the framework of the project development, it became clear that insufficient funding has led to a number of problems, such as weak targeting of the socially disadvantaged segment of society, lack of specialized medical personnel in regions, insufficient workload of medical organizations, weak population (about 20.1%) due to financial reasons, attendance at a primary health care facility. The lack of financial resources hinders the development of the system and the improvement of the quality of medical care, contributes to the impoverishment of many families due to catastrophic health care costs, hinders the availability of medical care and maintenance services and increasing financial affordability [11].

Drugs are provided to the population in the case of diseases included in the list established by the RA government and to members of certain social groups of the population, free of charge or on preferential terms. Medicines are provided to them by prescription from the list of basic drugs [12, 13].

The largest share of private expenditures is the cost of purchasing drugs and medical products. Out of the total 484,576.8 million drams of household health expenses, 188,188.1 million drams (39%) is the cost of purchasing medicines and medical supplies, of which 188,178.5 million drams is the cost of purchasing non-prescription drugs by households. The largest share of expenses for drugs was recorded in the case of medical care for respiratory, gastrointestinal, endocrine systems and oncological, neurological, cardiology diseases [14].

The limitations of financial management, the existing mechanisms of procurement procedures, do not provide an opportunity to implement current, flexible management of public financial resources, and in medical organizations, in many cases, problems arise in connection with the internal management of finances.

In order to achieve the goal of rational organization and concept of all that, a number of important functions must be implemented, among which, undoubtedly, the introduction of the formulary system can be important. Given that

a number of studies and analyzes are being developed and conducted for the introduction of formulary system, up to the selection of the most cost-effective, safe, quality drugs, formulary system will effectively contribute to the rational distribution of financial resources, thereby also supporting the treatment of patients, both inpatient and outpatient settings.

In a number of countries where a mandatory health insurance system has been introduced, the distribution of financial resources is effectively organized thanks to the presence of the formulary system, which is also reflected in the drug policy of those countries. In addition, formulary system can also be used by private insurance companies, which are not the only insurance companies dealing with medical insurance in Armenia. And the application of formulary system will enable the insurance company to provide drugs from the formulary list to the insured persons in the case of voluntary insurance, in the way of correct distribution of financial resources. In this way, the private insurance company not only becomes more competitive in the market, but also contributes to improving the health of the insured persons. In a similar way, in a number of countries, not only the state insurance system, but also the private insurance companies operate the drug insurance. And the application of such an example in Armenia, where the indicators related to health and healthcare financing are at a low level, will contribute not only to the saving of financial resources and their rational distribution, but also to the improvement of the health indicators of the population.

Since the problem of increasing the quality of drug provision and effective use of drugs exists in Armenia, where policies and relevant researches in this direction have hardly been carried out until now., thus formulary system is an effective mechanism to reduce the cost of purchasing medicines, increase the level of their rational use and the quality of drug supply to the population.

References

1. Beisenbaeva A.A., Gulyaev A.E., Ermekbaeva B.A., Nurgozhin, Dudnik E.V. Guidelines for organizing the implementation of the republican (national) formulary system of the Ministry of Health of the Republic of Kazakhstan (from 3 parts). Astana; 2006, 107 p. (in Russian)
2. Kosarev V.V., Babanov S.A. The value of the formulary system in the rational use of medicines // Healthcare Economics. 2001. - №. 9. -p.17-20. <https://medi.ru/info/6572/> (in Russian)

3. Pichkhadze G.M., Satbaeva E.M., Kisar L.V. Formulary system: implementation experience and prospects // Russian Medical Journal. 2012. - No. 2. - p. 7-10. (in Russian)
4. Progress in the rational use of medicines, including better medicines for children. World Health Organization. EB120/7, 7 December 2006. https://apps.who.int/gb/ebwha/pdf_files/EB120/b120_7-en.pdf
5. Shaydullina L.Ya., Ziganshina L.E. Rational use of medicines: contribution to the development of healthcare systems // Kazan Medical Journal. 2012. - №5. - p. 803-806. (in Russian)
6. Chuchalin A.G., Belousov Yu.B., Shukhov V.S. Formulary system: key concepts // Russian Medical Journal. 1999. - v. 7. - № 15. - p. 699-701. (in Russian)
7. Appeks O. Experience of formulary system functioning in the countries of the European Union, North America and Australia and prospects for implementation in Ukraine. Pharmacist. 2005. -№ 13. - p. 35-36. (in Russian)
8. Shiyanov V.N. The history of the formation of the formulary system of drug provision in civil and military health care. Actual problems of the humanities and natural sciences. 2016. - №3-4. - p. 30-32. (in Russian)
9. Zvyagintseva T.V., Mironchenko S.I. Formulary drug supply system: world experience and development in Ukraine // Experimental and Clinical Medicine (as a gift). 2011. - №. 2. - p. 61-66. (in Russian)
10. Federal guidelines for the use of medicines (formulary system). Issue XVIII (annually) / Ed. A.G. Chuchalin / Moscow: ECHO, 2017. - 848 p. (in Russian)
11. Draft resolution of the RA government on approving the concept of introducing comprehensive health insurance in the Republic of Armenia. <https://www.e-draft.am/projects/2137/about>
12. Law of the Republic of Armenia on Medical Aid and Service of the Population (03.04.1996). <https://www.arlis.am/documentview.aspx?docID=104958>
13. The order of the Minister of Health of the Republic of Armenia on establishing the list of basic drugs and declaring the order of the Minister of Health of the Republic of Armenia No. 07-H of March 17, 2018 to be void (July 28, 2021 No. 56-H). <https://www.arlis.am/DocumentView.aspx?DocID=154804>
14. Armenia. Intangible poverty. Part 3, 2018. https://www.armstat.am/file/article/poverty_2018_a_4.pdf