

AVAILABILITY AND RATIONAL USE OF MEDICINES IN UZBEKISTAN: A
NEW CHALLENGE FOR THE HEALTHCARE SYSTEM

Y.Y. Valiev,
Kh. Nuraliev

Assistant of the Department of Medical Radiology at
Tashkent State Medical University, Tashkent, Uzbekistan,
e-mail: Doctorvaliyev@gmail.com

Student of the Faculty of General Medicine at
Tashkent State Medical University, Tashkent, Uzbekistan,
e-mail: humoyunuraliyev@gmail.com
<https://doi.org/10.5281/zenodo.20176068>

Abstract. This article analyzes current issues related to access to medicines in Uzbekistan, their economic accessibility, and their rational use. The main idea of the article is that modern medicine is determined not only by the doctor and the hospital, but also by the patient receiving the necessary medicine on time, according to the correct prescription, and at an acceptable price. Despite the fact that the coverage of healthcare services in Uzbekistan has been expanding in recent years, all necessary medicines are still not fully covered, population costs remain high, and regional differences in drug supply and rational use remain. At the same time, the introduction of new legal and organizational mechanisms for the reimbursement system for medicines in 2024 testifies to the beginning of a new stage in this field.

Keywords. Uzbekistan, medicines, accessibility, prescription culture, reimbursement, primary health care, antibiotic resistance, pharmaceutical policy

Introduction. The quality of the medical system is often assessed by modern equipment, new buildings, or the number of specialized specialists. In fact, one of the most noticeable criteria for a patient is much simpler: is the prescribed medicine available to them, can they afford it, and is it explained how to take it. From this perspective, the issue of medicines is becoming one of the central links of Uzbekistan's healthcare system. According to the analysis of the WHO European Observatory, despite the presence of the main package of services funded by the state in the country, it does not yet fully cover all necessary services and medicines; meanwhile, healthcare expenditures from the population's pocket remain high. In 2019, one of the largest shares in the structure of healthcare expenditures was attributed to medical goods, primarily medicines. [1-6]. Therefore, the issue of medicines in Uzbekistan is not just a matter of pharmacy. It is simultaneously linked to financial protection, the quality of primary healthcare, the doctor's decision, electronic prescriptions, price management, and the patient's medical literacy. If the system cannot provide the patient with the right medication at an affordable price, even the best clinical diagnosis may not be a practical result. On the contrary, if drug policy is conducted correctly, it will be possible to control diseases, reduce complications, and reduce excessive inpatient load specifically in the primary unit [7-14].

The main objective of the presented manuscript is to briefly analyze the significance of conditionally availability and rational use of medicines in Uzbekistan: a new challenge for the healthcare system based on the results of authoritative scientific works conducted.

Main part

Why has the accessibility of medicines become a pressing issue? In Uzbekistan, the healthcare system officially offers the population a basic, state-funded package of services.



However, it is officially recorded that this package does not yet fully cover all essential, i.e., basic necessary services and medicines. The WHO European Observatory's review indicates that access to services is particularly difficult for the poor population due to relatively low government spending and high out-of-pocket expenditures. This situation is particularly evident in the pharmaceutical market, as the patient is often forced to purchase the medicine daily or for a long period of time rather than for examination [1-5]. For example, for patients with arterial hypertension, diabetes mellitus, bronchial asthma, or heart failure, treatment is not a one-time process, but a continuous one. Consequently, the price of a medicine is not only an economic figure but also a factor of commitment to treatment. If the patient cannot regularly withstand the cost of the medicine, they reduce the dose, stop the treatment, or completely deviate from the regimen prescribed by the doctor. As a result, the disease worsens, complications increase, and ultimately, the burden on the system itself increases even further. In this sense, the accessibility of medicines is not only a matter of social protection but also of clinical stability. This approach is also indirectly reflected in the materials of the healthcare strategy developed for Uzbekistan until 2030: the document considers financial protection, pharmaceuticals and medical devices, primary healthcare, and quality as interconnected areas [7-13].

The biggest problem in drug policy is not only the price but also the narrowness of the compensation mechanism. Often, when it comes to the high cost of medicines, the issue is explained solely by the market price. In reality, the problem is more complex: the decisive factor is not the price itself, but who will cover the costs of the medicine. The WHO's 2024 report on Uzbekistan shows that the country has begun transitioning to a reimbursement system, meaning the state reimburses medication costs at the primary healthcare level. Cabinet of Ministers Resolution No. 619, adopted in October 2024, legally established a new compensation system, which is planned to be implemented across the country by the end of 2026. In this system, the doctor writes an electronic prescription, medicines are dispensed at partner pharmacies, and expenses are covered by state funds through the SHIF [7-15]. The relevance of this change lies in the fact that previously, the main burden on the drug market often fell on the patient themselves. The HSiA review also notes that the government package does not yet cover all necessary medicines, so costs remain high. Thus, the new reimbursement system is not just a technical innovation, but a turning point in healthcare logic: a financial bridge is created from the patient's pocket to the necessary therapy prescribed by the doctor. However, the success of such a system depends not only on the legal solution but also on how it will work in practice: which medicines will be included in the list, how fair the coverage will be, how broad the pharmacy network will be, and how the electronic prescription system will work—these questions remain relevant to this day [4-12].

If accessibility across regions is not the same, the phrases "free" or "available" are insufficient. There is another important aspect in pharmaceutical policy: a medicinal product may theoretically be on the list, but in practice, there is a high probability that it will not be equally available in all regions. An analysis of the World Bank's healthcare expenditures in Uzbekistan shows that the drug procurement system has been fragmented for a long time, and many medical institutions were forced to purchase medicines in small volumes, often separately from low-capacity suppliers. At the same time, it is noted that funds allocated for medicines are often constrained, especially due to insufficient drug coverage required for primary care and outpatient therapy [1,2,4]. Under such conditions, even if a doctor gives a clinically correct recommendation, the question of the presence and continuity of the drug remains open. This is especially dangerous in cases of chronic diseases: the patient is given medicine for a month, and if the next month is not found, the therapy is interrupted. Furthermore, if there is a territorial imbalance, a significant difference arises between the quality of treatment for a patient in the



capital or a large city and a patient in a remote area. Therefore, drug policy must be evaluated not only by price but also by criteria of logistics, procurement, listing, electronic tracking, and real availability across regions. This idea is also reflected in the new strategic materials of the World Bank: pharmaceuticals and medical devices are considered a separate structural direction of the healthcare system in Uzbekistan [5,6,11,12].

If the prescription culture is weak, availability will not be sufficient. The cheapness or cost-effectiveness of a medication does not necessarily mean that it is always used correctly. If the culture of prescribing medicines by a doctor, the role of pharmacy staff, and the patient's medical literacy are not linked to each other, rational use of medicines will not be formed. In its activities to support fair and accessible access to medicines, the WHO/Europe emphasizes precisely this: countries must establish not only price, quality, and reimbursement systems but also the proper prescription and use of medicines [1,2,3]. This point is especially important for Uzbekistan, as during the period of strengthening primary health care, the main platform for daily work with medicines will be at this link. If a doctor prescribes many drugs without clear clinical indications, the patient develops the false idea that the more drugs, the better the treatment. Conversely, if an evidence-based prescription culture is established, the patient will switch to less targeted and effective treatment. This is also beneficial for the system: unnecessary drug costs are reduced, side effects are reduced, and the pharmaceutical budget is used more efficiently. Therefore, the problem of medicines in Uzbekistan cannot be solved solely by "cheapening medicines"; it must be considered in conjunction with the culture of rational prescription [11,12,13,14].

The question of antibiotics is the most delicate testing ground for drug policy. When it comes to rational use, antibiotics occupy a special place. The WHO Europe report on AMR surveillance in Uzbekistan for 2019-2022 highlights the need to improve the microbiological diagnosis of bloodstream infections, standardize sampling, determine sensitivity to antibiotics, and strengthen cooperation between clinicians and laboratories. The report notes that resistance indicators for certain pathogens, including *Klebsiella pneumoniae* and *Staphylococcus aureus*, are of concern, and in the existing system, problems may be caused by delays in results and disruptions in procurement processes [10-15]. What does that mean? This means that the question of antibiotics is much broader than the question of which drug is stronger. If an antibiotic is prescribed inappropriately or selected without laboratory confirmation, not only one patient but the entire society will suffer. Because antibiotic resistance is gradually becoming a common pharmaceutical threat. Strengthening drug policy in Uzbekistan must provide for the responsible use of antimicrobial agents alongside prices and supply. Otherwise, the expansion of the pharmaceutical market itself, in the absence of control, may increase new risks [3-9].

Electronic prescription and digitalization - the foundation of pharmaceutical discipline. A significant portion of the problems in the pharmaceutical market is also related to data leaks. Which medicine was prescribed to whom, when, for what period, whether it was issued through a pharmacy, whether the patient received it, and what the reimbursement amount was—all of this remains fragmented without digital tracking. The WHO's 2024 report emphasizes that the new reimbursement system in Uzbekistan will operate specifically through electronic prescriptions. This is a very important step, as an electronic prescription is not just a convenience; it is a tool for maintaining prescription discipline, transparency of expenditures, and tracking the patient's path [7,8,9].

In the review of the WHO European Observatory, digitalization is also noted as a separate direction among the reforms of recent years in Uzbekistan. The World Bank's strategic documents define pharmaceuticals, digital healthcare, and primary care as interconnected blocks of reform. This approach is correct, as the flow of information must be continuous to control the



mechanism of assignment and compensation. The widespread introduction of electronic prescriptions can reduce the number of incorrect prescriptions, repeated prescriptions of medicines, unjustified costs, and uncertainty in reimbursement. Consequently, digitalization is not an auxiliary element, but one of the central conditions of medicine policy in Uzbekistan [1-9].

Conclusins. The current problem related to medicines in Uzbekistan is not only the high cost of medicines. The main issue is to ensure that the patient has uninterrupted, fair, and reasonable access to the necessary medication. Under current conditions, this task must be addressed at several levels: expanding state coverage, the functioning of the reimbursement system, the full implementation of electronic prescriptions, the streamlining of procurement and drug supply, and strengthening the culture of actual prescription among doctors. Reforms in this direction have already begun: evidence of this is the legislative changes in 2024 and the reimbursement mechanism planned to be implemented at the national level by 2026.

In my opinion, at the next stage of Uzbekistan's medicine, the old question of "is there medicine or not" must be replaced by another: "is the right medicine applied to the right patient at the right time, at the right price, and correctly?" If the healthcare system can provide a positive answer to this question, it means that not only the pharmaceutical industry but the entire medical system has risen to a qualitatively new level.

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