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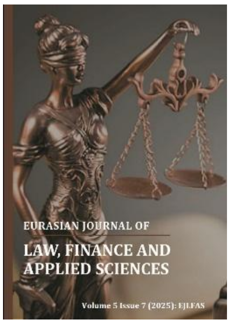

DEVELOPMENT OF THE PSYCHOANALEPTIC DRUG MARKET IN UZBEKISTAN: CURRENT STATE AND PROSPECTS (2022–2024)

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ABSTRACT

The psychoanaleptic drug group plays a crucial role in the pharmacotherapy of neurological and psychiatric disorders, particularly in cognitive rehabilitation and affective disorders. This study presents an analytical assessment of the psychoanaleptic drug market in Uzbekistan over the period 2022–2024 based on DRUG-Audit data. Sales volumes, manufacturer structure, dosage form distribution, and International Nonproprietary Name (INN) segmentation were analyzed. The results demonstrate a persistent dominance of nootropic and psychostimulant drugs, a steady increase in antidepressant consumption, and a significant decline in domestic pharmaceutical production in 2024. Special attention is given to the clinical relevance of psychoanaleptic drugs in post-serous meningitis rehabilitation and to the prospects for localization of production.

Introduction

Diseases of the central nervous system remain one of the most challenging problems of modern medicine due to their high prevalence, chronic course, and significant impact on quality of life. According to the World Health Organization, neurological and mental disorders account for a substantial proportion of global morbidity and disability [1]. These conditions often require long-term pharmacotherapy combined with rehabilitation measures.

Among inflammatory diseases of the central nervous system, serous meningitis occupies a special place. Although the acute phase of the disease is frequently reversible, up to 40–60% of patients experience persistent cognitive and asthenic symptoms after recovery, including memory impairment, reduced attention, and fatigue [6]. This clinical context justifies the widespread use of psychoanaleptic drugs aimed at supporting cognitive function and psycho-emotional stability.

Psychoanaleptic drugs include nootropics, psychostimulants, antidepressants, and anti-dementia agents. Globally, the market for these medications has expanded in recent years due to increased life expectancy, rising stress-related disorders, and improved diagnosis of mental health conditions [2,3]. In the European Union and the United States, the consumption of antidepressants and nootropics has shown sustained growth over the last decade [2,6,7,8].

In Uzbekistan, the pharmaceutical industry has undergone active reforms aimed at reducing import dependence and stimulating domestic production [5]. However, despite these efforts, several therapeutic segments, including psychoanaleptics, remain heavily dependent on imported products. Therefore, a detailed analysis of the psychoanaleptic drug market is essential for identifying priority areas for industrial development and improving access to effective pharmacotherapy.

Aim of the Study

The aim of this study was to analyze the psychoanaleptic drug market in Uzbekistan during 2022–2024 based on DRUG-Audit data, with an assessment of sales dynamics, manufacturer structure, dosage forms, INN distribution, and the role of these drugs in post-serous meningitis rehabilitation, as well as to evaluate prospects for domestic production.

Materials and Methods

The study was based on DRUG-Audit data collected for the period 2022–2024. The analysis included psychoanaleptic drugs classified under ATC group N06. Sales volumes were evaluated in terms of the number of packages sold. The market was analyzed by pharmacological subgroups (nootropics/psychostimulants, antidepressants, anti-dementia drugs), manufacturer origin (domestic, CIS countries, other foreign manufacturers), and dosage forms.

A separate INN-based segmentation was conducted for oral and parenteral dosage forms. Data processing and visualization were performed using Microsoft Excel 2021. Descriptive statistical methods were applied to identify trends and structural changes.

Results and Discussion

Market structure by pharmacological groups

The analysis revealed that nootropics and psychostimulants consistently dominated the psychoanaleptic drug market throughout the study period. In 2022, these agents accounted for 91.7% of total sales volume, while in 2024 their share remained high at approximately 86.6%. This reflects sustained demand for drugs used to improve cognitive function and treat asthenic conditions, particularly in neurological practice.

In contrast, the antidepressant segment demonstrated stable growth. Its share increased from 4.5% in 2022 to 9.5% in 2024, indicating a growing need for pharmacological management of affective disorders. Similar trends have been reported in international studies, linking increased antidepressant use to heightened awareness of mental health issues [2,3].

The anti-dementia segment showed limited and unstable growth, with a temporary increase in 2023 followed by a decline to 3.9% in 2024. This may be explained by restricted access to these medications, high costs, and limited diagnostic coverage of dementia in the population.

Manufacturer structure

An important finding of this study is the sharp decline in the share of domestic manufacturers in 2024. While local production showed moderate growth in 2022–2023, it fell to approximately 3.3% in 2024. At the same time, the share of foreign manufacturers increased to 56.4%, whereas products from CIS countries maintained a relatively stable position at around 41.2%.

These data indicate a persistent dependence on imported psychoanaleptic drugs, which poses economic and strategic challenges for the national healthcare system. Similar concerns have been highlighted in previous pharmacoeconomic studies conducted in Eastern Europe and Central Asia [4,5].

Dosage form distribution

Tablets and injectable solutions were the most prevalent dosage forms, accounting for 39.4% and 37.4% of total sales, respectively. This distribution reflects clinical practice patterns, where oral forms are preferred for long-term outpatient therapy, while parenteral forms are widely used in hospital settings and acute neurological conditions.

Other dosage forms, including capsules, syrups, and oral solutions, represented a smaller share and were primarily used in specific clinical situations.

INN-based analysis and clinical implications

INN segmentation revealed that several active substances maintained high demand across different dosage forms. In the oral segment, valerian-based products, sulpiride, hopantenic acid, escitalopram, and vinpocetine showed consistently high sales volumes. The appearance of clozapine in significant volumes in 2024 suggests an expansion of therapeutic approaches in psychiatric practice.

In the parenteral segment, combination products and peptide-based drugs occupied leading positions, while monocomponent agents such as piracetam, vinpocetine, and citicoline remained widely used. These findings confirm the clinical relevance of psychoanaleptic drugs in neurological rehabilitation.

Particularly noteworthy is the role of nootropics in post-serous meningitis rehabilitation. Clinical studies indicate that cognitive impairment after meningitis requires targeted pharmacological support [6]. The increasing share of nootropic drugs in this context underscores their importance in restoring cognitive function and improving patient outcomes.

Conclusion

The psychoanaleptic drug market in Uzbekistan during 2022–2024 was characterized by high and stable demand, dominated by nootropic and psychostimulant agents, alongside a growing antidepressant segment. Despite ongoing pharmaceutical reforms, a significant decline in domestic production was observed in 2024, highlighting the continued reliance on imported medicines.

The predominance of tablet and injectable dosage forms reflects their clinical convenience and widespread use. Several key active substances, including citicoline, hopantenic acid, vinpocetine, and piracetam, demonstrated sustained demand in both oral and parenteral forms.

The findings support the need to prioritize the development of domestic psychoanaleptic drug production, particularly nootropics and combination products, to reduce import dependence and improve access to essential therapies. This is especially important for post-serous meningitis rehabilitation, where psychoanaleptic drugs play a critical role in cognitive recovery.

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