ANALYSIS OF FACTORS INFLUENCING THE MARKET OF ANTI-OSTEOPOROTIC DRUGS

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https://doi.org/10.5281/zenodo.17332772

Relevance: osteoporosis is a systemic disorder characterized by reduced bone mass, strength, and microarchitecture, leading to increased bone fragility. It poses a significant medical and socio-economic threat. According to estimates, in the 21st century, approximately 250 million people worldwide are affected by osteoporosis. The disease is chronic and significantly impacts the quality of life (QoL) due to pain, limitations in physical activity and social life, as well as changes in mental health.

Several challenges exist in providing care for patients with osteoporotic fractures. These can be divided into two main groups: the first is patients' personal attitudes toward the diagnosis and treatment of osteoporosis, and the second is the lack of sufficient proactivity among healthcare professionals in diagnosing osteoporosis, prescribing anti-osteoporotic therapy, and monitoring its effectiveness. Recent studies indicate that even after fractures occur, patients often do not pay adequate attention to osteoporosis diagnosis or treatment. It is projected that by 2050, more than 50% of osteoporotic fractures worldwide will occur in Asia, making the issue particularly relevant for Uzbekistan, where the population and life expectancy are increasing. Currently, ensuring the supply of anti-osteoporotic drugs for patients with osteoporosis remains a pressing issue. The lack of comprehensive studies on the anti-osteoporotic drug market in Uzbekistan creates several challenges in meeting the population's needs and demands for these medications.

Purpose of the study: the primary objective of this study is to identify the factors influencing the anti-osteoporotic drug market through analysis, scientifically evaluate their interrelationships, and forecast future market development trends. Additionally, the study aims to improve healthcare policies and provide practical recommendations to market stakeholders.

Materials and methods: in this study, comparative analysis and statistical methods were employed to identify general factors affecting the consumption of anti-osteoporotic drugs, based on data from the National Statistics Committee of the Republic of Uzbekistan and the Institute of Health and Strategic Development. The obtained data were processed using Microsoft Excel software.

Results: the study analyzed the prevalence of osteoporosis in Uzbekistan and the factors influencing the anti-osteoporotic drug market. Between 2016 and 2024, the number of osteoporosis cases in the country increased from 5,383 to 10,516, reflecting a 95% overall growth trend. According to CAGR calculations, the annual growth rate averaged 9%, with the highest rates observed in the Republic of Karakalpakstan (46%), Navoi (46%), and Andijan (45%) regions. A Pearson correlation analysis showed a positive correlation ($r = 0.61$) between population growth and osteoporosis cases across the country, with the highest correlation in Khorezm region ($r = 0.98$). Urbanization analysis revealed that in 2024, 53.5% of patients were urban residents, while 46.5% were rural residents, and women accounted for 53% of cases. Limited diagnostic capabilities (0.16 densitometers per 1 million people, with only 33 certified devices since 2014) were found to hinder early detection of the disease and negatively impact market demand.

Conclusions: pharmaceutical and medical factors were identified as having the most significant impact on the marketing environment of the anti-osteoporotic drug market. Additionally, economic, demographic, and political factors were noted as influencing the dynamics of the drug market.