



11. SOME ASPECTS OF OPTIMIZATION GERIATRIC PHARMACOTHERAPY

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Introduction. One of the main tasks of the modern health system is ensuring an adequate quality of life for the elderly, whose share in the world is constantly increasing. At the same time, the changes associated with the aging of the body require new approaches to improve pharmacotherapy, the use of specially selected medicinal preparations that would ensure an adequate therapeutic effect as well as their effective use.

Aim of study. Evaluation of pharmacokinetics peculiarities of medicinal preparations on elderly, as well as ways to optimize geriatric pharmacotherapy.

Methods and materials. Analytical-descriptive study of specialized literature using electronic databases such as Scopus, PubMed and EBSCO.

Results. As a result of the data from the specialized literature, it is known that changes in the function of organs and systems induced by the natural aging processes of the body can directly influence the pharmacokinetics of medicinal preparations and can increase the risk of adverse reactions. One of the factors influencing the pharmacokinetics of drugs in geriatric patients is the violation of the motor function of the gastrointestinal tract and a decrease in the secretion of digestive enzymes. This leads to slower absorption of oral medications used by the elderly. Adjusting the dose of drugs for the elderly takes into account the hydrophilic-lipophilic properties of the active substances. Due to the increase in the percentage of adipose tissue, the depletion of connective tissue, as well as the reduction of the amount of water in elderly people, the distribution of lipophilic drugs (tetracyclines, benzodiazepines, barbiturates, etc.) increases with age, which require a longer period of time to obtain the therapeutic concentration in the blood, thus prolonging their half-life. For example, for diazepam, a fat-soluble preparation, the volume of distribution in the elderly is 2 times greater, that is, the half-life of the drug in an elderly patient will be twice as long as in a middle-aged patient. These changes have been shown to directly affect drug absorption, metabolism, distribution and excretion and may in turn alter the patient's safety profile. The record of all changes in geriatric patients, the regular monitoring of the effectiveness of the use of drugs, the change of their dosage regimen can influence the optimization of pharmacotherapy and reduce the risk of the development of some unwanted reactions.

Conclusion. In recent years worldwide the proportion of the elderly population is growing rapidly, and age-related changes require the development of new medicinal preparations and delivery systems with adjustable doses, for the maximum benefit without adverse effects.