

SELECTION OF THE OPTIMAL STRATEGY FOR MUCOLYTIC THERAPY OF RESPIRATORY DISEASES

D. V. Dobrianskyi¹, G. L. Gumeniuk^{2,3}, P. F. Dudka¹, I. P. Tarchenko¹, A. O. Dorokhova¹, K. O. Kozhevnikova¹

¹*Bogomolets National Medical University, Kyiv, Ukraine*

²*Yanovsky National Institute of Phthiology and Pulmonology, National Academy of Medical Sciences of Ukraine, Kyiv, Ukraine*

³*Shupyk National Healthcare University of Ukraine, Kyiv, Ukraine*

Abstract. Lung health mostly depends on effective mucociliary clearance. Many lung diseases have a classic pathogenetic triad (hypercrinia, dyscrinia, mucostasis) – when thick and viscous mucus is difficult to secrete and this can lead to an infection, progressive inflammation, as well as impaired airway patency. Today, the arsenal of drugs that reduce the density of sputum, improve mucociliary clearance and promote sputum release has significantly increased. Thus, medical professionals face the issue of choosing the optimal drug or their combination, as well as the way of drug management, in acute and chronic respiratory diseases, taking into account the characteristics of the course of the disease and the presence of concomitant pathology. Wider implementation of nebulizer therapy in clinical practice is also relevant. This will significantly increase the effectiveness of mucolytic therapy, which is especially important for patients with chronic bronchopulmonary diseases. Inhalation of a hypertonic solution of sodium chloride in combination with hyaluronic acid provides a direct mucolytic effect – it reduces viscosity and improves the biophysical characteristics of mucus, subsequently improving its transport and excretion.

Key words: mucolytics, mucokinetics, nebulizer therapy, hypertonic solution of sodium chloride, hyaluronic acid.
