

**OPERATIONAL CONTROL DURING BRONCHIAL ASTHMA EXACERBATION****T. V. Bezditko, G. V. Yeryomenko, D. O. Malieiev***Kharkiv National Medical University of the Ministry of Health of Ukraine, Kharkiv, Ukraine*

**Abstract.** *The aim.* The main aim is to analyze the comparative effectiveness of inhalation devices in patients with uncontrolled bronchial asthma (BA). *Materials and methods.* Clinical examination of 34 patients. Patient's eligibility criteria for participating in the research were: all the patients had an appropriate age and confirmed diagnosis of uncontrolled BA, had a mild exacerbations, gave the Informed Consent, met the criteria of exacerbation and were able to participate in spirometric measurements. All the patients in the study were of the identical age, gender and severity of BA, before hospitalization they received basic two-component therapy (salmeterol in combination with fluticasone propionate 25/125 micrograms 2 times per day). Depending on the usage of either nebulizer or a metered-dose inhaler, patients were divided into 2 groups: main and control group. The main group included 19 patients who continued to receive basic treatment and additional nebulized salbutamol 1 container x 2 times per day (Nebutamol® in the form of the solution) and fluticasone propionate 1,0 ml x 2 times a day (Nebufuzon®) and metered-dose inhaler salbutamol if needed. The control group included 15 patients, who had doubled dosage of their basic therapy (25/125 micrograms x 2 inhalations 2 times per day) and received metered-dose inhaler salbutamol treatment if needed. Treatment occurred according to the national guidelines of Ministry of Health of Ukraine. All the patients received oxygen when needed. Control of treatment was done on the sixth day after hospitalization. *Results and discussion.* Dynamic control of the clinical symptoms among patients with BA who received different types of inhalations (nebulizer and metered-dose inhaler) showed, that a number of patients with a positive clinical response on the sixth day after hospitalization was significantly higher in the main group (72.9 % in main group, 27.1 % in control group). These changes were accompanied by the positive changes in patient's self-assessment of the clinical symptoms, better results of peak flowmetry, peak expiratory flow rate, respiratory function. *Conclusions.* Nebulized Nebutamol® and Nebufuzon® therapy provides faster results of treatment comparing to the basic therapy with short-acting beta-agonists (SABAs) and reduces the number of days patients spend in the hospital. Inhalation therapy is a modern method of the drugs delivery to the airways, with proven safety and effectiveness. The nebulizers are even more important for the transport of SABAs and inhaled corticosteroids (ICS) during BA exacerbation.

**Key words:** bronchial asthma, nebulizer therapy, spirometry.

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