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## EFFICIENCY OF THE BASIC THERAPY OF PERSISTENT BRONCHIAL ASTHMA AND THE WAYS OF ITS PERSONIFIED OPTIMIZATION IN GENOTYPIC VARIABLES IN CHILDREN

O.O. Rechkina, N.G. Gorovenko, V.O. Stryzh, S.M. Rudenko, O.M. Kravtsova,  
Z.I. Rossokha, S.P. Kiriachenko

### Abstract

The efficacy of preventive therapy for bronchial asthma was analyzed among 136 children and influencing factors were determined. The technology of personified phenotype-associated baseline therapy for bronchial asthma in children with different levels of total IgE in blood serum and genotypes with the AT2R1 gene was developed: for the genotype AT2R1 CC and IgE > 400 IU/l an inhaled corticosteroid with a long-acting beta<sub>2</sub>-agonist and the leukotriene-receptor antagonist; for the genotype AT2R1 CC and IgE < 400 IU/l – ICS and long-acting beta<sub>2</sub>-agonist; for the genotype AT2R1 AC and IgE > 400 IU/l – only leukotriene-receptor antagonist; for the genotype AT2R1 AC and IgE < 400 IU/l – only inhaled corticosteroid. Individual selection of basic therapy regimen, with due to the patient's phenotype and its genotype characteristics, favor to increasing level of asthma control in 3.4 times through the reduction of the day and night symptoms frequency, the need for short-acting bronchodilators and increasing of the expiratory air flow in the lungs by the forced exhalation volume (FEV<sub>1</sub>) at 16.5%.

**Key words:** children, bronchial asthma, phenotype, genotype, treatment.

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E.A. Rechkina, doctor of medical science, senior research fellow,  
Chief of Pediatric Pulmonology and Allergology dpt.*

*SO «National Institute of phthysiology and pulmonology named after F.G. Yanovskii of NAMS of Ukraine»  
10, M. Amosova str., Kyiv, Ukraine; 03680; tel./fax: +38 (044) 273-31-26; e-mail: rechkina@ifp.kiev.ua*