

MODELLING THE INFLUENCE OF PATIENT'S CHARACTERISTICS AND TREATMENT REGIMENS ON THE RISK OF MODERATE AND SEVERE EXACERBATIONS OF ASTHMA: FOCUS ON MASTER II STUDY

T. V. Konstantinovich

Abstract

Despite a significant progress in management of asthma this disease remains a significant problem for healthcare system and society because of disability. Besides, treatment costs really increases, since, being a chronic condition, asthma requires prolonged, sometimes life-long treatment.

Eventually, optimization of diagnosing and management aimed on establishing and keeping asthma control, is a leading task for current healthcare system, patients and physicians in the whole world, including Ukraine.

This review presents the results of MASTER II trial, which followed the aim to evaluate the influence of major individual characteristics of patients on the risk of exacerbation and effectiveness of treatment in patients on maintenance treatment with inhaled corticosteroids (fluticasone propionate) or inhaled corticosteroid/beta-agonist fixed dose combination (fluticasone propionate or budesonide/formoterol) based on the model, which was developed during phase III/IV in moderate to severe asthma patients. There were modelled 8 scenarios to study the effectiveness of different regimens of asthma maintenance therapy with cumulative exacerbation rate as an endpoint both under randomized trial design and real-life conditions.

MASTER II study has demonstrated that maintenance therapy using fluticasone/salmeterol fixed dose combination resulted in more significant (10 %) decrease of exacerbation risk comparing with budesonide/formoterol ($p < 0,01$), regardless of baseline patient's characteristics.

Key words: bronchial asthma, risk of exacerbations, modeling, MASTER II study.

Ukr. Pulmonol. J. 2024;32(2):22–29.

Tetyana V. Konstantynovych

Vinnitsia Pirogov Memorial Medical University,

Professor of the Department of Propedeutics of Internal Medicine

Doctor of medical sciences, professor

Address for correspondence: Vinnitsya, 21030, Keletska str., 99/83

Phone number + 38 (096) 390 87 64, tvkonstantinovich@yahoo.com