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Title:	A COMPARATIVE ANALYSIS OF EFFICACY, SAFETY AND COST-EFFECTIVENESS OF FLUTICASONE AND MONTELUCAST IN THERAPY OF BRONCHIAL ASTHMA
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OBJECTIVES: Assessment of efficacy and safety of fluticasone and montelukast in treatment of adult patients with chronic bronchial asthma and cost-effectiveness from payer's and social perspective.

METHODS: Comparison of efficacy and safety were based on valid RCTs found in systematic reviews. Costs were estimated on the basis of current cost of medications and productivity loss in Poland. In the incremental analysis, the ratio of social cost difference and efficacy difference was calculated. Multivariate sensitivity analysis was performed.

RESULTS: Statistically significantly higher efficacy of fluticasone over montelukast has been demonstrated in relation to the following end points: asthma symptom score, episode-free days, and supplemental rescue medications. There is no significant difference among treatment groups with respect to exacerbations and other adverse events. Both options are safe and no difference in safety has been demonstrated. The use of montelukast instead of fluticasone results in smaller health benefit for the patients, and concomitantly, higher treatment costs. The estimated difference in a period of 24 weeks of administration is approximately PLN 733 (163) and PLN 1401 (306) per patient from payer's and social perspective, respectively favouring fluticasone. The use of fluticasone in place of montelukast for a period of 24 weeks in one patient is associated with gained additional 14.6 days free of asthma symptoms. Multivariate sensitivity analysis confirmed robustness of the results.

CONCLUSION: Based on the conducted cost-effectiveness analysis, it may be concluded that fluticasone is a dominant option over montelukast in the treatment of bronchial asthma. Both perspectives concluded that administration of fluticasone will result in payers budget savings - PLN1596 (348) per one patient year. Prospective studies on indirect costs of asthma treatment methods should be conducted.