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Title:	A COMPARATIVE ANALYSIS OF EFFICACY, SAFETY AND COST-EFFECTIVENESS OF SALMETEROL AND MONTELUCAST IN THERAPY OF BRONCHIAL ASTHMA
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**OBJECTIVES:**To compare efficacy and safety of salmeterol and montelukast in adults with chronic bronchial asthma and cost-effectiveness from payer's and social perspective.

**METHODS:** The analysis was based on a systematic review. The efficacy and safety of salmeterol and montelukast were compared. Costs were estimated on the basis of current cost of medication and productivity loss in Poland. The time horizon of 12 weeks was taken. The ratio of cost difference and efficacy difference (episode-free days - EFD) was calculated in incremental analysis.

**RESULTS:**The efficacy analysis showed that statistically significant higher EFD ratio is achieved with salmeterol (32%) than with montelukast (26%). Direct and indirect cost analyses of the two options show that lower costs are generated by the use of salmeterol. The use of montelukast in place of salmeterol results in smaller health benefit, and concomitantly, higher treatment costs. The use of salmeterol in place of montelukast in a period of 12 weeks in one patient is associated with gain of additional 5 days free of asthma symptoms. The estimated difference in a period of 12 weeks of administration is approximately PLN 157 (34 ) and PLN 248 (54 ) per patient from payer's and social perspective, respectively favouring salmeterol. The multivariate sensitivity analysis was performed and confirmed the robustness of results.

**CONCLUSION:** Salmeterol is a dominant option in relation to montelukast in the treatment of bronchial asthma. Salmeterol should be used before administration of montelukast. Both perspectives concluded that administration of salmeterol will result in payers budget savings - PLN680 (149 ) per one patient year. Conducting of prospective studies of indirect cost of asthma treatment is recommended.