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Title:	COST-UTILITY OF FLUTICASONE COMPARED WITH BECLOMETHASONE AND BUDESONID IN CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD) IN POLAND
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OBJECTIVES:To evaluate cost-utility of fluticasone compared with beclomethasone and budesonide in COPD treatment in Poland.

METHODS: A discreet event simulation (DES) model was used to estimate utilities and costs of treatment (medicines, standard hospitalization, ambulatory visit cost for patients with COPD) on fluticasone therapy in comparison to beclomethasone and budesonide. Analysis was performed from public payer's perspective with a time horizon of 10 years. Measures of medical effects of the therapies were obtained from a systematic review of RCTs. The range of possible outcomes in the model included: exacerbation, death, FEV1. Based on the systematic review fluticasone is more effective than beclomethasone and budesonide in terms of FEV1 improvement. Differences in costs and effects are presented per individual patient, described as statistically significant (SS) or non-significant (NS) and discounted at 5% and 3.5% respectively. Probabilistic sensitivity analysis was performed to estimate the probability that fluticasone is cost-effective in Polish conditions (threshold about 105,000 PLN/QALY).

RESULTS:The QALY difference between fluticasone and beclomethasone was 0.136 QALY (SS), and the cost difference was 4544 PLN (NS). In deterministic analysis incremental cost per QALY for fluticasone compared with beclomethasone was 33,333 PLN. The probability of fluticasone being cost-effective was 88.1%. The QALY difference between fluticasone and budesonide in 10 years perspective was 0.071 (NS). The cost difference was 9,027 PLN (SS). In deterministic analysis incremental cost per QALY for fluticasone compared with budesonide was 127,190 PLN and exceeded the threshold. There was 44.9% chance that the fluticasone therapy was cost-effective in comparison with budesonide therapy.

CONCLUSION: Fluticasone therapy is more effective than beclomethasone (SS) and budesonide (NS). It offers to patients with COPD an additional, pay-off therapeutic option.