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Title:	COST-UTILITY ANALYSIS OF ROPINIROLE IN PARKINSON'S DISEASE (PD) TREATMENT
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OBJECTIVES:To compare cost-effectiveness of controlled release ropinirole (ROP CR) with levodopa (LD) and piribedil (PIR) in treatment of Parkinson's disease in Poland.

METHODS: Lifetime Markov model from Polish public payer perspective was developed. Two schemes: drug monotherapy (ROP CR vs LD and PIR) and therapy added to levodopa (ROP CR vs LD) were considered. Effectiveness data were taken from the systematic review of randomized clinical trials. Utility was modeled based on the UPDRS values and dyskinesia occurrence. In the model Polish costs of drugs, qualification, monitoring, hospitalization and dyskinesia treatment were included. sensitivity analysis were performed for key model's parameters

RESULTS:Estimated lifetime QALYs per patient for comparison of monotherapies were: 8.12 for ropinirole CR, 7.95 for levodopa and 7.89 for piribedil. Differences in QALYs were statistically significant in favor of ropinirole CR for both comparators. Average costs per patient were 76,710 PLN for ropinirole CR, 61,180 PLN for levodopa and 62,860 PLN for piribedil. The ICERs for ropinirole CR were: 94,200 PLN in comparison to levodopa and 59,780 PLN in comparison to piribedil. Estimated lifetime QALYs per patient for comparison of ropinirol CR as add-on to levodopa with levodopa monotherapy in higher doses were: 7.70 for ropinirole CR and 7.16 for levodopa. Differences in QALYs were statistically significant in favor of ropinirole CR. Average costs per patient were 64,110 PLN for ropinirole CR and 18,420 PLN for levodopa. The ICERs for comparison of ropinirol CR with levodopa was 84,920 PLN.

CONCLUSION: Ropinirole is cost-effective in comparison to piribedil and levodopa in monotherapy, and as add-on to levodopa in comparison to levodopa monotherapy in higher doses (threshold of three GDP: 102,045 PLN).