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**Title:** Efficacy of levodropropizine: A meta-analysis in adults and children

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**Body:** Introduction: Cough is a very common symptom with deep impact on day life, often requiring an empiric treatment with antitussive agents, among which Levodropropizine is a very well tolerated peripheral drug. Objective: Our study is a meta-analysis of published studies both in adults and children, with the aim to evaluate the overall comparative efficacy of Levodropropizine. Methods: After systematic literature search, we performed a standardized meta-analysis of 7 controlled clinical studies of Levodropropizine (5 vs. central antitussives and 2 vs. placebo) assessing efficacy cough outcomes, including a total of 2633 patients. Main efficacy parameters were cough frequency, severity, and night awakenings. Results: Meta-analysis of all standardized efficacy parameters showed a highly statistically significant difference in the overall antitussive efficacy in favor of Levodropropizine vs. control treatments ( $p = 0.001$ ). The heterogeneity test for the efficacy outcome was not statistically significant ( $p=0.0619$ ).

Conclusions: Our meta-analysis indicates that Levodropropizine is an effective antitussive drug both in adults and children, with statistically significant better overall efficacy outcomes vs. central antitussives, in terms of reducing cough intensity, frequency and nocturnal awakenings. These results further reinforce the favorable benefit/risk profile of Levodropropizine in the management of cough.