Is gabapentin effective in improving cough-related quality of life in patients with unexplained chronic cough?

**Bottom line**
Gabapentin in doses of 1,200–1,800 mg per day improves cough-related quality of life (QoL, by about 9%) and cough severity (by up to 28%) in patients with unexplained chronic cough (SOR: **B**, RCT and cohort study). A trial of gabapentin is recommended when benefits outweigh potential risks at an initial dose of 300 mg daily, which may be titrated as tolerated to a maximum dose of 1,800 mg daily in 2 to 3 divided doses (SOR: **C**, expert opinion).

**Evidence summary**
Unexplained chronic cough, also known as idiopathic or refractory chronic cough, is defined as a cough that persists despite appropriate investigation and treatment.

A single double-blind RCT evaluated the efficacy of gabapentin in 62 adult patients with refractory cough.¹ In this 10-week trial, patients received either gabapentin 600 mg 3 times daily or placebo with a primary outcome of increase in Leicester cough questionnaire (LCQ) scores from baseline to week 8. The LCQ is a self-completed scoring tool assessing chronic cough-related QoL, with a scale from 3 to 21, in which a higher score demonstrates better QoL. The mean baseline LCQ scores were 13 for the gabapentin group and 12 for the placebo group.

Based on the LCQ scores, gabapentin significantly increased cough-related QoL over placebo (2.5 vs 11 points, respectively; mean difference [MD] 1.8; 95% CI, 0.56–3.0). Adverse effects were reported in 31% of the study population, most commonly nausea and fatigue, which were managed by gabapentin dose decrease.¹

An open-label cohort study of 35 patients who were identified retrospectively as having chronic idiopathic cough evaluated the effectiveness of gabapentin 600 mg twice daily for at least 4 weeks.² Efficacy was assessed with a telephone survey using a cough severity scale from 0 to 10, in which a higher score indicated worse cough severity. The cough severity scale was validated through correlation to scores of 4 QoL questions from the LCQ.

The cough severity score decreased significantly from baseline (2.8 points; P<.0001), with 57% of patients reporting an improvement in cough and the remainder reporting no change. The cough severity scores and LCQ scores significantly correlated (r=−0.28; P=.05).²

**Recommendations from others**
Recent American College of Chest Physicians (ACCP) CHEST evidence-based guidelines for treatment of unexplained chronic cough recommended a therapeutic trial of gabapentin, as long as potential risks and benefits were discussed with the patient and follow-up occurs after a 6-month trial (Grade 2C, weak recommendation based on low-quality RCT data demonstrating improved quality of life).³ The recommended dosing schedule was gabapentin 300 mg daily, with an increase by 300 mg daily as tolerated to a maximum dose of 1,800 mg daily in 2 divided doses. The ACCP guidelines recommended a gabapentin trial either in addition or as an alternative to multimodal speech pathology therapy, referral to a cough specialist, or enrollment in a clinical trial of patients with unexplained chronic cough.

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**REFERENCES**