

Naproxen effective for cold symptoms, specifically the reduction of cough

Clinical question Is naproxen effective in reducing cold symptoms, specifically cough?

Bottom line A Cochrane review on acute cough concluded that there was no definite benefit to any over-the-counter cough treatments compared with placebo (*Cochrane Database of Systematic Reviews* 2007 Issue 1). Although the study reviewed here included an experimental method of causing colds in college students, naproxen resulted in a significant reduction of cough symptoms after four days. Since nearly all coughs in patients who make a doctor's appointment last approximately three weeks, regardless of treatment, clinicians can say: "No medications have been proven to work well, but naproxen seems to be better than nothing and may be worth a try."

Synopsis Occasionally we POEM authors discover a study published before POEMs were first written that, at least to us, seems relevant and useful for clinicians today. Evidence suggests that the average patient with a bothersome cough waits nine days before consulting a doctor, and the cough lasts an additional 12 days regardless of treatment (*JAMA* 2005;293:3029). As a result, many clinicians remain frustrated when trying to help patients with a persistent cough. These investigators administered rhinovirus intranasally into student volunteers who were either philanthropic, masochistic or badly in need of additional cash. Participants were confined to a hotel room for five days and randomly received (uncertain allocation concealment) either naproxen or matched placebo. Two different doses of naproxen were given in three separate studies (400mg initially followed by 200mg three times daily for five days,

or 500mg initially followed by 500mg three times daily for five days). Study volunteers masked to treatment group assignment self reported various cold symptoms using a five-point Likert scale, where 0 = absent and 4 = very severe. Complete data were available for 79 (91 per cent) of the initial 87 volunteers. Colds developed in 67 per cent of naproxen recipients and 75 per cent of placebo recipients (difference not significant). The total five-day symptom score was significantly less in the naproxen group than in the placebo group. As might be expected, the difference was largest for headache, reaching statistical significance on the first day. Two separate symptom-scoring methods confirmed a statistically significant beneficial effect of naproxen on cough beginning on day 4. Although the study continued only for a total of five days, it is possible that the beneficial effect of naproxen may have extended into the predictable 16 additional days of expected cough.

Level of evidence 1b- (individual randomised controlled trial with wide confidence interval)

Reference Sperber SJ, Hendley JO, Hayden FG, Riker DK, Sorrentino JV, Gwaltney JM Jr. Effects of naproxen on experimental rhinovirus colds. A randomised, double-blind, controlled trial. *Annals of Internal Medicine* 1992;117(1):37-41.

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