

**Bupropion plus nicotine replacement no better than replacement alone**

**Clinical question** Does the addition of bupropion to nicotine replacement and counselling improve smoking cessation rates?

**Bottom line** Addition of bupropion (Zyban) does not further increase long-term smoking cessation rates in those who receive nicotine replacement and cognitive-behavioural counselling. Quit rates at one year were similar in both groups — 22 per cent and 28 per cent (*P* non-significant).

**Synopsis** The investigators conducting this study enrolled 209 men and 34 women who were receiving care at a veterans affairs medical centre in the US. These smokers were mainly unmarried middle-aged white men recruited by hospital-based advertising, as well as from lists of patients who previously had participated in smoking cessation clinical studies. Presumably, the patients in the latter group had failed previous smoking cessation attempts, although they may have taken up smoking to participate in the study (ie, professional study participants). The patients were randomised (allocation concealment uncertain) to receive either placebo or bupropion 150mg twice daily for seven weeks. Patients in both groups also received cognitive-behavioural counselling for 30 to 60 minutes with five telephone follow-up counselling sessions. They also

received nicotine replacement therapy using transdermal nicotine patches. As is typical in smoking cessation studies, quit rates were high initially: 81 per cent at one week. The clinically relevant outcome for smoking cessation is the quit rate at one year. In this study, biochemically confirmed quit rates at one year were not statistically different between the two groups: 19 per cent in the bupropion-treated group compared with 24 per cent in the placebo-treated group (*P* non-significant). These results were in the intention-to-treat analysis. Results were higher in the patients who were compliant, but not different between the two groups: 28 per cent of compliant bupropion-treated patients and 22 per cent of compliant placebo users. Although the study was large, as were the quit rates, the researchers did not provide a power calculation.

**Level of evidence** 1b (individual randomised controlled trial with narrow confidence interval)

**Reference** Simon JA, Duncan C, Carmody TP, Hudes ES. Bupropion for smoking cessation. *Archives of Internal Medicine* 2004; 164:1797–803.

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