Nicotine patch therapy based on smoking rate, followed by bupropion for the prevention of relapse to smoking

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The purpose of this study was to determine whether tailored nicotine patch therapy that is based on smoking rate can be carried out in a multisite oncology investigative group practice setting, if the long-term use of bupropion reduces the rate of relapse to smoking in smokers who stop smoking with nicotine patch therapy and if bupropion can initiate smoking abstinence among smokers who have failed to stop smoking after nicotine patch therapy.

Fourteen North Central Cancer Treatment Group sites recruited generally healthy adult smokers from the general population for nicotine patch therapy and based the patch dosage on smoking rates.

At completion of nicotine patch therapy, nonsmoking participants were eligible to be assigned to bupropion or placebo for six months (for relapse prevention) and smoking participants were eligible to be assigned to bupropion or placebo for eight weeks of treatment. Of 578 subjects, 31% were abstinent from smoking at the end of nicotine patch therapy. Of those subjects not smoking at the end of nicotine patch therapy who entered the relapse prevention phase, 28% and 25% were not smoking at six months (the end of the medication phase) for bupropion and placebo, respectively. For those still smoking at the end of nicotine patch therapy, 3.1% and 0.0% stopped smoking with bupropion or placebo, respectively. The study concluded that tailored nicotine patch therapy for the general population of smokers can be provided in a multisite oncology investigative group setting. Bupropion did not reduce relapse to smoking in smokers who stopped smoking with nicotine patch therapy. Bupropion did not initiate abstinence among smokers who failed to stop smoking with nicotine patch therapy.