Three-Drug Combo Aids Quit Rates in Ill Smokers

Patients used patch, inhaler, and bupropion until they were able to go 14 days without cravings.

BY MIRIAM E. TUCKER
Senior Writer

PITTSBURGH — Among medically ill smokers, a combination of the nicotine patch, a nicotine inhaler, and bupropion significantly increased smoking cessation rates at 26 weeks compared with the nicotine patch alone and did not result in serious adverse events.

In a randomized trial of 127 medically ill smokers, 35% of those given the combination therapy and 19% of those given the patch alone continued to be cigarette abstinent at 26 weeks. Participants' diagnoses included cancer, cardiovascular disease, and diabetes.

The combination therapy was associated with more reports of adverse effects, but these were not serious effects nor did they prompt participants to quit therapy at higher rates. Study quit rates were 6% in both groups.

The study is the first-ever randomized trial aimed at evaluating a three-medication combination for extended duration in medically ill smokers.

About 50% of medically ill smokers continue to smoke after their diagnosis, said Dr. Michael B. Steinberg, who presented the findings at the annual meeting of the Society of General Internal Medicine. Yet this patient group is typically excluded from clinical trials evaluating smoking cessation medications. Further, there is a perceived but unsubstantiated belief that smoking cessation agents may be harmful to patients with chronic conditions.

Moreover, the labeling of over-the-counter nicotine replacement products advises against combining them with other cessation medications and specifies a standard 8- to 12-week duration of treatment, said Dr. Steinberg of the Robert Wood Johnson Medical School, New Brunswick, N.J. Previous observational data from his group's tobacco dependence program have shown increased abstinence rates with the use of medication combinations for longer durations (Prev. Med. 2006;42:114-9).

The current study is the first-ever randomized trial to evaluate a three-medication combination for extended duration in medically ill smokers, according to Dr. Steinberg.

The study was funded by the Cancer Institute of New Jersey and the Robert Wood Johnson Foundation–Physician Faculty Scholars Program. Dr. Steinberg disclosed that he has received research grant and consultancy funds from Pfizer Inc.

The intervention combined both passive (the 21-mg/day patch) with active (inhaler) nicotine replacement, along with 150 mg/day bupropion sustained release (SR). The 63 patients randomized to the intervention group were instructed to continue using all three medications as long as they needed, until they were able to go 14 days without cravings or withdrawal symptoms.

The 64 controls were randomized to nicotine patch alone, with the usual 10-week taper: 21 mg/day for 6 weeks, then 14 mg/day for 2 weeks, 7 mg/day for another 2 weeks, then discontinuation. Both groups also were given an American Heart Association brochure about smoking cessation, but no other behavioral therapy.

The two groups were similar in mean age (49 years, ranging from 22 to 86 years), percentage of females (65%), and ethnicity (61% white, 32% black, and 6% Hispanic). Medical conditions included cancer in 13%, cardiovascular disease in 24%, chronic obstructive pulmonary disease in 24%, diabetes in 16%, hypertension in 39%, and depression in 36%.

At baseline, participants smoked a mean of 21 cigarettes per day and had tried to quit an average of 12 times.

At 4 weeks, abstinence rates—verified by a measured expired carbon monoxide level less than 10 ppm—were 62% for those given the triple combination and 47% for those on the patch alone.

At 26 weeks, 35% of the combination patients and 19% of the controls were still abstinent. That difference was statistically significant, with an odds ratio of 2.33 ($P = .04$).

People in the combination therapy group were more likely to stick with their treatment. Mean duration of treatment was 89 days for the combination group and 35 days for the patch only group.

The mean time to relapse was 96 days after the target quit date for the combination group, compared with 59 days for the patch alone, with a hazard ratio of 0.55 ($P = .006$).

This was an intention-to-treat analysis in which the smokers who were lost to follow-up were counted as continued smokers. Approximately 24% of each group were lost to follow-up by 26 weeks, he noted.

Similar to other studies, time to the first cigarette of the day predicted abstinence rates at 6 months, which were 33% in those who waited longer than 30 minutes and 19% in those who waited less than 5 minutes.

Adverse events that occurred significantly more often in the combination group were insomnia (25% vs. 9%), anxiety (22% vs. 3%), fatigue (22% vs. 3%), and diarrhea (13% vs. 2%). Dream disturbance and rash occurred in about a third of the combination group and a quarter of the patch group. In both groups, 6% of patients discontinued because of adverse events. ■

Payments From Employers Promote Smoking Cessation

BY MIRIAM E. TUCKER
Senior Writer

PITTSBURGH — Financial incentives for smoking cessation offered by employers in large workplace settings succeed in getting employees to quit, the findings from a government-funded study suggest.

The subject is controversial. Two 2005 Cochrane reviews concluded that the evidence did not support the efficacy of incentives—including financial ones—in persuading people to quit smoking in workplace settings or elsewhere (Cochrane Database Syst. Rev. 2005; [doi:10.1002/14651858.CD004307 and doi:10.1002/14651858.CD003440]).

But according to Dr. Kevin G. Volpp, most of the studies examined were underpowered and/or offered insufficient incentives—in some cases as little as $10. "The Cochrane review should have concluded that the things that have been tried to date haven't worked, not that this can't work if properly tested," Dr. Volpp of the University of Pennsylvania, Philadelphia, said at the annual meeting of the Society of General Internal Medicine.

He is the principal investigator for a randomized, controlled study funded by the Centers for Disease Control and Prevention in which 878 regular smokers (five or more cigarettes/day) employed by General Electric Co. received information about local community-based smoking cessation resources and coverage of prescription drugs and physician visits for smoking cessation. Of those, 436 were randomized also to be offered the incentives of $100 for completing a smoking cessation program, another $250 for quitting smoking by either the 3rd or 6th month after study enrollment, and another $400 for continuous abstinence between the 6- and 12-month follow-up visits. Cotinine tests were done at each visit to verify abstinence.

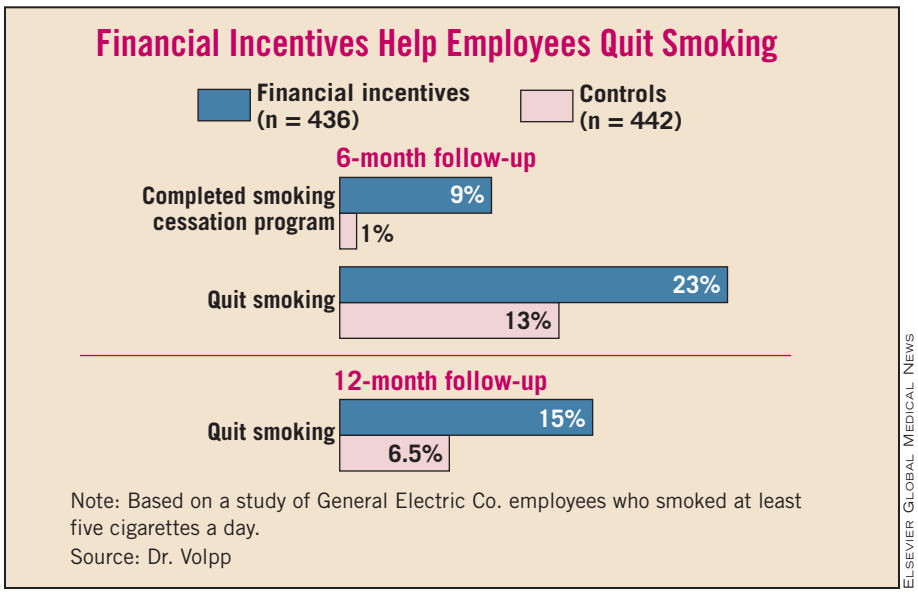
During the first 6 months, 9% of the incentive group completed smoking cessation programs, compared with just 1% of the controls, a highly significant difference. Quit rates in the first 6 months also were significantly higher for those offered incentives, 23% vs. 13%. The proportions of the two groups that had quit by 12 months, the study's primary end point, were 15% and 6.5%, respectively, again a highly significant difference. Moreover, the relapse rate between 6 and 12 months was significantly lower for the incentive group than for the controls, most likely because the largest dollar amount was offered for the 12-month end point, Dr. Volpp said.

The success of the intervention appeared to be influenced partly by the incentive to enroll in a smoking cessation program. Among all study participants who completed such programs, quit rates at 12 months were 47% for the incentive group and 15% for the controls. Among those who did not participate in a program, 9.5% and 6%, respectively, remained abstinent at 12 months. However, though getting people to enroll in programs did appear to help, most of the subjects who quit did not participate in them, Dr. Volpp said.

The incentives appeared effective regardless of the number of times the employee had tried to quit in the past. The incentives also were at least somewhat effective in those who smoked two packs or more per day, although those numbers—2 of 22 such smokers who received incentives had quit at 12 months, compared with 0 of 20 controls—were too small to be of significance.

The next step in the study is to visit the employees again at 15 and 18 months to see what proportion remains abstinent in the absence of financial reward. The investigators also plan to evaluate the cost-effectiveness of undertaking such an initiative in employer-based settings.

During the question-and-answer period, Dr. Volpp noted that employers might derive even more benefit than would insurance companies from inducing employees to quit: The benefit to insurers would come strictly from lowered health care costs, but employers also could see gains in productivity because employees wouldn't be leaving the building to take smoking breaks during working hours. ■



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