

Longer duration of prescribed antismoking medication before quitting appears promising

February 26 2015, by Bert Gambini

Smokers may be more likely to successfully quit their habit if simple adjustments were made to how an existing anti-smoking medication is prescribed, according to a new study by a University at Buffalo research team.

Tobacco use is the nation's leading cause of preventable death, claiming more than 480,000 lives annually; that's about one in five deaths each year. Additionally, more than 16 million Americans suffer from a disease caused by [smoking](#), according to a 2014 report from the Department of Health and Human Services.

But the habit is hard to break. Even after using some of the most effective antismoking treatments available, about 75 percent of former smokers are smoking again within a year after quitting.

Yet Larry Hawk, a University at Buffalo psychologist, says additional spending aimed at searching for a possible new treatment is not the only answer, perhaps not even the best answer to immediately improving those statistics. He says there's no magic bullet, but "we can make a lot of gains by paying more attention to making the treatments we already have work better."

Hawk collaborated with Martin Mahoney, MD, PhD, professor of oncology at Roswell Park Cancer Institute, on the study "Does extended

pre-quit bupropion aid in extinguishing [smoking behavior](#)," which will appear in a forthcoming issue of *Nicotine & Tobacco Research*.

Bupropion is the case in point. Originally developed and tested as an antidepressant, bupropion (Wellbutrin), also sold under the brand name Zyban, is one of several evidence-based medications available to help people quit smoking.

This study's results suggest that the efficacy of this already proven medication can be improved by changing how it has been traditionally prescribed. The usual course begins with patients starting the medication one week prior to quitting. This study extended that period to four weeks, and divided 95 subjects who smoked at least 15 cigarettes a day into a group who took the standard dosing for one-week before quitting and another group took bupropion for four weeks before quitting.

The idea of giving quit-smoking medication for longer before trying to quit is based in both clinical observations and behavioral theory. Anecdotal reports that people taking bupropion for reasons other than [smoking cessation](#) claimed they were giving up their cigarettes without trying to quit. This fits with animal research and learning theories that suggest blocking the positive effects of smoking – without increasing craving and withdrawal – should allow smokers to cut down on their smoking without trying. And that should translate into more success with quitting.

No one knows exactly how long that process takes, but Hawk says prior work on nicotine replacement therapy and a similar study he conducted with the smoking medication varenicline (Chantix) used a similar four-week time frame. Four weeks also balanced the need to provide enough time before quitting for the changes in smoking and reinforcement to occur without raising concerns that smokers would find the delay before quitting to be too long.

One group of received three weeks of a placebo; the other group received three weeks of bupropion; and everyone received bupropion after that. All of the subjects also received state-of-the-art smoking cessation counseling.

"One of the things I love about this type of study is that everybody gets a good treatment. Our control group is getting standard effective therapy. One of the reasons that's important to me is people often come in with several failed attempts to quit. These treatments give them a sense that this time they'll be more successful – before they get to their quit day," said Hawk, whose father died from a smoking-related cancer.

The study's results demonstrate that extending the use of bupropion prior to quitting reduced smoking during that period without increasing craving or withdrawal; in fact, craving tended to decrease more in the extended group. Furthermore, 53 percent of subjects in the extended group remained smoke-free 30 days after quitting, compared to 31 percent in the standard treatment group.

"These studies are exciting because they suggest that we might be able to nearly double success rates using the same medications we already have. There's the potential to help a lot of people live longer, healthier lives," he said. "It's going to take bigger, longer term studies to be able to say for sure, but we're ready to get in there and find out."

Mahoney adds: "Without any new smoking cessation drugs close to approval, this appears to be a promising strategy to enhance the effectiveness of existing medications, such as [bupropion](#), which are proven to aid in quitting smoking. Stopping smoking represents the most important lifestyle change that a smoker can make and it is important to remember that it is never too late to quit."

More information: "Does extended pre-quit bupropion aid in

extinguishing smoking behavior?" *Nicotine Tob Res* first published online January 14, 2015 [DOI: 10.1093/ntr/ntu347](https://doi.org/10.1093/ntr/ntu347)

Provided by University at Buffalo

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