

Smoking Cessation Drug Not Boosting Number of Smokers Who Quit

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The introduction of a new prescription smoking-cessation aid, varenicline, in 2006 has had no significant impact on the rate at which Americans age 18 and older successfully quit smoking, according to a study led by researchers at University of California, San Diego School of Medicine.

The findings, published online August 17 in *Tobacco Control*, suggest that the primary effect of varenicline (marketed as Chantix) has been to displace the use of older tobacco addiction therapies, such as nicotine patches and the antidepressant, bupropion (Zyban).

Moreover, in this population analysis, researchers said varenicline's enhanced effectiveness in helping smokers quit, compared with other cessation aides, appeared to be short-lived, lasting for three months, after which time varenicline users no longer had higher rates of success.

"We had hoped the new pharmacotherapy would help more people quit, but this is not what is happening," said lead author Shu-Hong Zhu, PhD, a professor in the Department of Family Medicine and Public Health and director of Center for Research and Intervention in Tobacco Control at UC San Diego. "Instead, varenicline is replacing other options like the patch, without having any significant population-level impact on quitting success."

According to the Centers for Disease Control, almost 20 percent of U.S. adults 18 years or older are cigarette smokers. If smoking continues at the current rate among U.S. youth, one in every 13 person younger than 18 is projected to die prematurely of a smoking-related illness. Globally, tobacco use is estimated to cause nearly 6 million deaths annually.

For the study, UC San Diego School of Medicine researchers analyzed two U.S. Census Bureau surveys of smokers age 18 and older, conducted in 2003 and 2010-11, before and after varenicline became commercially available.

The surveys probed smokers' efforts to quit in the last 12 months; their use of nicotine replacement therapies (including the nicotine patch, gum, lozenge and inhaler) and prescription medications such as bupropion and varenicline. Varenicline helps reduce nicotine cravings by

binding to nicotine receptors in the brain, stimulating the release of dopamine, a neurotransmitter that helps regulate the brain's reward and pleasure centers.

Based on responses from more than 39,000 smokers, overall use of pharmacotherapy increased from 28.7 percent of smokers trying to quit in 2003 to 31.1 percent in 2010-11, representing a 2.4 percent increase.

This slight increase in the use of cessation aides, however, did not translate into more smokers breaking the habit. In 2003, approximately 4.5 percent of smokers reported successfully quitting for at least a year, compared with 4.7 percent in 2010-11.

"We are not saying Chantix does not help smokers quit. It does, but it won't solve America's tobacco epidemic unless it inspires more smokers to try to quit," Zhu said.

Co-authors include Sharon E. Cummins, Anthony C. Gamst, Shiushing Wong, and Tyson Ikeda, all at UC San Diego.

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