

Which smoking cessation aids are most effective in real-world settings?

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VARENICLINE IS ASSOCIATED WITH INCREASED ODDS OF SUCCESSFUL SMOKING CESSATION

while data were inconclusive for the benefits of nicotine replacement therapy (NRT) and e-cigarettes in helping smokers quit, a national population-based survey has found.¹

Although there is a substantial body of evidence from randomised controlled trials to suggest that smokers are more likely to quit if they use pharmacotherapy the results of clinical trials do not necessarily generalise to real-world conditions in non-study populations.

The investigators used data from the Smoking Toolkit Study, an ongoing monthly survey of representative samples of adults in England, established in 2006, that monitors trends in a range of smoking-related variables. Random location sampling is used to select a new sample of 1,700 adults each month who complete a baseline survey. Since 2015, smokers have been invited to complete a follow-up survey at 12 months.

For this study, the authors used aggregated data from respondents to the baseline survey between April 2015 and November 2020 to examine the real-world effectiveness of popular smoking cessation aids. The study outcome was smoking cessation, defined as self-reported abstinence at 12 months.

Between 2015 and 2020, 19,353 out of 114,078 (17.0%) respondents to the baseline Smoking Toolkit Study survey reported current smoking. Follow-up data at 12 months were available from 3,015 (15.6%) adult smokers, and of these 1,104 (36.6%) reported having made at least one quit attempt between baseline and 12-month follow-up. A total of 59 participants with missing data were excluded, leaving a final sample for analysis of 1,045 participants. Follow-up respondents tended to be older, more socioeconomically advantaged, and marginally more nicotine dependent than those who did not respond at follow-up.

More than half of participants, 604, (57.8%) reported using one or more smoking cessation aids in their most recent quit attempt. The majority of these (79.3%)

reported using one aid, 16.9% reported using two, and 3.8% three or more.

Overall, 33.7% of participants (352/1,045) who reported trying to quit in the 12 month study period were abstinent at follow-up. Unadjusted figures showed that abstinence rates ranged from 24.4% of those who reported using NRT bought over the counter (OTC) to 46.3% of those who used varenicline.

After adjustment for potential confounders and for the use of other aids, study participants who reported using varenicline in their most recent quit attempt had significantly higher odds of abstinence than those who did not use varenicline, OR 2.69 (95% CI: 1.43-5.05; P = 0.02).

There was no significant association between the use of any other smoking cessation aid (including prescription NRT, OTC NRT, e-cigarettes, or traditional behavioural

support) and abstinence after adjusting for potential confounders, though Bayes factors based on results from the fully adjusted model indicated that the data were not sensitive enough to detect small beneficial effects.

The study authors state: 'In the context of existing evidence, the results of the present study provide increased confidence in the real-world effectiveness of varenicline as a smoking cessation aid.'

'Participants who reported using varenicline in their most recent quit attempt had significantly higher odds of abstinence than those who did not use varenicline'

REFERENCE

1 Jackson SE, Kock L, Kotz D, Brown J. Real-world effectiveness of smoking cessation aids: a population survey in England with 12-month follow-up, 2015-2020. *Addict Behav* 2022;135:107442

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