

Varenicline more effective for smoking cessation than bupropion**Clinical Question**

How effective are nicotine receptor partial agonists (NRPAs) for smoking cessation?

Bottom Line

Varenicline at standard dose (1 mg twice a day) more than doubled the chances of quitting compared with placebo (NNT*11). Low dose varenicline roughly doubled the chances of quitting, and reduced the number and severity of side effects. The number of people stopping smoking with varenicline was higher than with bupropion or with NRT (nicotine replacement therapy). Limited evidence suggested that varenicline might have a role to play in relapse prevention. The most common side effect of varenicline was nausea. Cytisine was effective and affordable but absolute quit rates were modest. Dianicline was not effective and is no longer in development.

*NNT=number needed to treat to benefit one individual

Caveat

Early reports of possible links between varenicline and suicidal ideation and behaviour have not been confirmed but concerns have been raised that it may slightly increase cardiovascular events in people already at increased risk of those illnesses.

Context

NRPAs may help people to stop smoking by a combination of maintaining moderate levels of dopamine to counteract withdrawal symptoms and reducing smoking satisfaction. Varenicline is the most widely available treatment. Cytisine is a similar medication but is only available in central and eastern Europe and through internet sales.

Cochrane Systematic Review

Cahill K et al. Nicotine receptor partial agonists for smoking cessation. Cochrane Reviews, 2016, Issue 5. Art. No.: CD006103.DOI: 10.1002/14651858.CD006103.pub7. This review contains 44 studies involving 29,353 participants.