

Many pharmacological interventions effective for smoking cessation

Clinical question	How effective are nicotine replacement therapy (NRT), bupropion, varenicline, cytisine and nortriptyline in achieving longterm abstinence (six months or longer) from smoking?
Bottom line	NRT and bupropion were 29% more effective than placebo. Varenicline was 48% more effective than placebo, 26% more effective than NRT gum, and 20% more effective than NRT patches and "other" NRT options (tablets, sprays, lozenges and inhalers). However, combining two types of NRT was as effective as using varenicline alone, and helped more people to quit than single types of NRT. There was little to choose between different types of NRT, except that "other" NRT was 9% more effective than NRT gum. NRT combined with nortriptyline or bupropion was not more effective than NRT alone. Compared with placebo, both cytisine and nortriptyline improved the chances of quitting, with minimal risk of harms.
Caveat	Although there was a marginal increase in the likelihood of seizures while taking bupropion, there were no increased risks of neuropsychiatric or heart and circulatory problems. The evidence for the safety of varenicline is still under investigation, but there was no evidence from the trials that it was linked to an increase in neuropsychiatric or heart and circulatory problems.
Context	Smoking is a main cause of early death throughout the world. There are a number of medications which can help people to quit smoking. Three of these - NRT, bupropion, and varenicline - are licensed for this purpose in the US and Europe. Cytisine (similar to varenicline) is licensed for use in Russia and Eastern Europe.
Cochrane Systematic Review	Cahill K et al. Pharmacological interventions for smoking cessation: an overview and network meta-analysis. Cochrane Reviews, 2013, Issue 5. Art. No.: CD009329. DOI: 10.1002/14651858. CD009329.pub2. This review contains 12 treatment-specific reviews covering 267 studies involving 101,804 participants
Pearls No. 398, July 2013, written by Brian R McAvoy	

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