

Cochrane Corner

Nicotine receptor partial agonists are probably the most effective treatment to stop smoking

Bruce Arroll, Professor of General Practice and Primary Health Care, University of Auckland

Correspondence to: b.arroll@auckland.ac.nz

The problem

About 25% of the New Zealand population smokes. These rates are higher in Maori (45%) and Pacific people (37%). My experience is that many people have tried nicotine replacement or gone 'cold turkey' – this has not been successful and they are keen for some other treatment. The next step in New Zealand is

nortriptyline (fully funded) or bupropion (Zyban).

Clinical bottom line

Varenicline (Champix) is now available in New Zealand and, while not funded, provides another option. This is a nicotine receptor antagonist that blocks the nicotine effect in the brain. Patients describe it as taking away the taste of the

cigarette. It is the most effective of the smoking cessation treatments based on numbers needed to treat. It is expensive – about \$95 for two weeks of medication, but smoking a pack of ready-made cigarettes is about \$4000 per year or \$168 for two weeks. After two weeks of taking Varenicline about 60% of patients will stop, but many return to smoking as behavioural cues start to take over.

Nicotine receptor antagonists

	Success	Evidence	Harms
Nicotine receptor antagonists	NNT from 5 to 12 for abstinence at 52 weeks.	Cochrane review ¹	Nausea is the most common side effect but rarely causes an individual to stop taking the medication. There is also an increase in nightmares but this is due to the stopping of the smoking

NNT = numbers needed to treat for one person to get an improvement

NNH = numbers needed to treat for one person to get an adverse effect

References

1. Cahill K et al. Nicotine receptor partial agonists for smoking cessation. Cochrane Reviews, 2007, Issue 1.

All people residing in New Zealand have access to the Cochrane Library via the Ministry website www.moh.govt.nz/cochranelibrary