

Pharmacotherapy for Smoking Cessation

Varenicline [Champix®]



Background

Varenicline (Champix®) is a partial agonist of the $\alpha 4\beta 2$ nicotinic acetylcholine receptor (nAChR). It works primarily via its dopaminergic activity to alleviate urges to smoke and other symptoms of tobacco withdrawal. Varenicline also has an antagonistic effect on the nAChR, which means that it blocks the action of nicotine at the same receptor. This appears to lead to a reduction in the 'reward' associated with smoking.¹ Varenicline is fully funded in New Zealand as a smoking cessation treatment, subject to Special Authority criteria, for patients who have previously had two trials of NRT or a trial of bupropion or nortriptyline.

Evidence of efficacy

A Cochrane systematic review shows that use of varenicline for 12 weeks significantly increases long-term quit rates compared with placebo (24% vs. 11%, Risk Ratio =2.31, 95% CI: 2.01-2.66).² There is also added benefit of using an additional 12 weeks of varenicline, compared to placebo, in enhancing 1-year quit rates, although extended use is not currently subsidised.

Prescribing varenicline

Varenicline should be started at least 1 week prior to the target quit date. Treatment is started with 0.5 mg daily for the first three days increasing to 0.5 mg twice daily for the next four days and then continued at a dose of 1 mg twice daily for a total of 12 weeks. People should be followed up regularly to check on progress and adverse events.

Things to tell your patients

- Varenicline works by reducing craving for cigarettes making quitting smoking a little easier and increases the chances of stopping for good. However it's no magic cure and effort is still required.
- You need to start varenicline 1-2 weeks prior to your Quit Date. You can smoke as normal prior to your Quit Date and then you should aim not to have a single puff from then on.
- Nausea, insomnia and vivid dreams are common side effects, but are usually mild to moderate. Taking the tablet with food will reduce the nausea.
- Some people experience changes in their mood when using Champix and stopping smoking; it is important to let us know if this happens to you.

Contraindications and cautions

- Varenicline should not be used in people who have experienced a hypersensitivity reaction to it and it is currently not recommended for use in women who are pregnant or breastfeeding or in adolescents.
- Varenicline is excreted in urine, almost completely unchanged. While no dosing adjustment is necessary for patients with mild to moderate renal impairment, a reduced dosing frequency of 1 mg once daily is recommended for patients with severe renal impairment.
- There are no known clinically meaningful drug interactions.
- Varenicline should be used with cautions in people with mental health illness.³ People with mental health illness may experience worsening of their pre-existing psychiatric illness while taking varenicline and should be monitored closely.
- Risks and benefits: It is important to discuss the possibility of serious neuropsychiatric symptoms in the context of the benefits of quitting smoking with patients.

Adverse effects

- The most commonly reported adverse event is nausea, which is experienced by up to a third of people.
- Other common effects include headache, insomnia, and abnormal dreams.
- There have also been reports of depression and suicidal ideation in people using varenicline. Although there is no firm evidence of causality caution is warranted. The datasheet advises "*Patients and their families should be advised that the patients should stop taking CHAMPIX and contact a health care professional immediately if changes in behaviour, agitation or depressed mood, that are not typical for the patients are observed, or if the patient develops suicidal ideation or suicidal behaviour*".¹
- Varenicline is included in the Intensive Medicines Monitoring Programme (IMMP).⁴ Please remember to tell patients that they have been prescribed a monitored medicine and report all adverse events occurring with IMMP medicines.

References

1. Medsafe. New Zealand Medicines and Medical Devices Safety Authority. Varenicline Data Sheet. Available at: <http://www.medsafe.govt.nz/profs/datasheet/c/Champixtab.pdf>.
2. Cahill K, et al. Nicotine receptor partial agonists for smoking cessation. Cochrane Database Syst Rev. 2010 Issue 12.
3. Purvis TL, et al. Varenicline use in patients with mental illness: an update of the evidence. Expert Opin Drug Saf. 2010;9(3):471-82.
4. <http://www.medsafe.govt.nz/profs/puarticles/theuseofvareniclinesept10.htm>

Additional resources

- For the full prescribing information on Champix, please see the New Zealand data sheet, available at: <http://www.medsafe.govt.nz/profs/Datasheet/c/Champixtab.pdf>
- Information on the Special Authority Application can be found at: www.pharmac.govt.nz/latest/SA1054.pdf
- Additional information is available in the New Zealand Smoking Cessation Guidelines: <http://www.moh.govt.nz/moh.nsf/indexmh/nz-smoking-cessation-guidelines>