Figure 3. Pharmacotherapy treatment algorithm

**Assess need for pharmacotherapy**

Assess nicotine dependence by asking:
- minutes after waking to first cigarette
- number of cigarettes per day
- cravings or withdrawal symptoms in previous quit attempts

Nicotine dependence indicated if:
- smoking within 30 minutes of waking
- smoking more than 10 cigarettes per day
- history of withdrawal symptoms in previous quit attempts

Consider patient’s prior experience and views on pharmacotherapy

**Non-pharmacological support**

Support quit attempts with non-pharmacological strategies
- Counselling
- Cognitive and behavioural coping strategies – delay, deep breathe, drink water, do something else
- Offer written information
- Offer Quitline referral or other assistance
- Arrange follow-up visit, if appropriate

**Assess need for pharmacotherapy**

**Not nicotine dependent**

**Not willing to use pharmacotherapy**

**Nicotine dependent: Pharmacotherapy**

- Recommend use of pharmacotherapy
- Explain options for pharmacotherapy
- NRT, varenicline, buproprion
- Specify therapy based on effectiveness, clinical suitability and patient preference
- Explain that medicines can reduce urge to smoke, but not eliminate them
- Provide counselling in combination with pharmacotherapy

**Most effective pharmacotherapy**

**Not suitable for NRT or varenicline**

**NRT**

Clinical suitability
- Suitable for many smokers, including adolescents
- Combination NRT patch plus oral preferred
- Caution in patients with recent cardiovascular event – check PI
- May be suitable as a last resort in pregnant women

Patient preferences
- OTC availability (all forms) and PBS subsidy (patch, gum, lozenge)
- Concerns about side effects of varenicline and buproprion
- Variety of forms available
- Possible option in pregnancy under medical supervision

**Varenicline**

Clinical suitability
- Not recommended in pregnancy, childhood
- Nausea in 30% of patients
- Reduce dose in severe renal impairment – check PI
- Consider using in combination with NRT

Patient preferences
- On current evidence, varenicline is the most effective single form of pharmacotherapy
- PBS subsidy
- Lack of drug interactions

**Follow up and monitor**

- Discuss benefit of follow-up GP visits, especially if there is concern about medications, common adverse effects such as skin irritation, sleep disturbance
- Monitor for neuropsychiatric symptoms if high risk

**Support and review**

- Encourage use of support services
- Encourage completion of at least 10 weeks of therapy
- Consider an additional course and further follow-up visit if patient needs extra support

**Buproprion sustained release**

Clinical suitability
- Absence of contraindications such as current or past seizures, concurrent monoamine oxidase inhibitors, pregnancy
- Caution with other conditions or drugs that lower seizure threshold – check PI

Patient preferences
- PBS subsidy
- Oral non-nicotine preparation
- Evidence of benefit in chronic disease and depression

Follow up and monitor

- Give initial two-week script
- Arrange for second script
- At follow up, review progress, and adverse effects
- Monitor allergy problems (eg skin rash) and insomnia
- Monitor for neuropsychiatric symptoms

Encourage and support

- Encourage use of support services
- Encourage completion of at least seven weeks of therapy
- Consider a follow-up visit if patient needs extra support

**Follow up and monitor**

- Give initial four-week script; arrange for second script and discussion of progress
- At follow up, review progress and problems – common adverse effects are nausea and abnormal dreams
- Monitor for neuropsychiatric symptoms if high risk

Encourage and support

- Encourage use of support services
- Encourage completion of 12 weeks of therapy – consider further 12 weeks to reduce relapse
- Follow-up visit if support needed

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Figure 3. Pharmacotherapy treatment algorithm

GP, general practitioner; NRT, nicotine replacement therapy; OTC, over the counter; PBS, Pharmaceutical Benefits Scheme; PI, product information

Reproduced with permission from The Royal Australian College of General Practitioners, Supporting smoking cessation: A guide for health professionals, 2nd edn, East Melbourne, Vic, RACGP, 2019, p. 34.