

Smoking cessation and managing stable chronic obstructive pulmonary disease

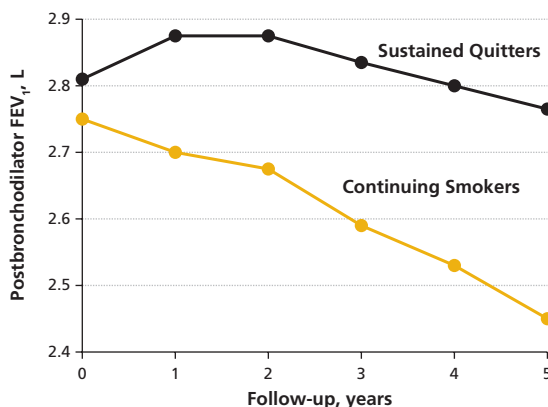
KEY MESSAGES

- Determine intention to quit and level of nicotine dependence to tailor smoking cessation strategies.
- Offer non-drug therapies and pharmacotherapies for smoking cessation; smoking cessation is the most effective intervention to slow progression to COPD.
- Use spirometry to confirm COPD diagnosis and assess severity.
- Start therapy with an inhaled short-acting bronchodilator and regularly review inhaler technique.
- Refer early for pulmonary rehabilitation to improve symptoms and quality of life.

Most smokers who are considering quitting — and 40% say they think about it at least once a day — name health as the reason.¹ The health reasons are particularly compelling for smokers with chronic obstructive pulmonary disease (COPD), given that nothing else slows the progression of airflow limitation to the same degree as quitting (Figure 1).²

Advice and encouragement from health professionals has assisted many people to give up smoking.¹

Figure 1. Effect of quitting smoking on progression of airflow limitation in COPD.



Redrawn from Anthonisen NR, et al. JAMA, November 16, 1994—Vol 272, p. 1497. Copyright © 1994 American Medical Association. All rights reserved.

Ask smokers if they are ready to quit

Use the 5As approach. After **Asking** about smoking status and gaining permission to discuss the subject further, give brief, non-confrontational **Advice** about the risks of smoking and the benefits of quitting. **Assess** if smokers are motivated to quit, by asking “are you ready to stop smoking now?”³

Assess the level of nicotine dependence

A smoker is likely to be dependent on nicotine when they:

- smoke within 30 minutes of waking *and/or*
- smoke more than 15 cigarettes per day *and/or*
- have a history of withdrawal symptoms in previous quit attempts.³

Tailor Assistance to current readiness to quit

Regardless of whether smokers are ready to quit, unsure about quitting, or not ready to quit in the near future, health professionals can offer brief, useful assistance. See www.nps.org.au/ppr_50 for suggestions.

Unplanned quit attempts are very common and often successful. Advice from a health professional can be a trigger, even for people who are apparently not ready to quit.^{1,4}

See NPS News 68 (www.nps.org.au/news_68) for links to resources and support for health professionals and patients.



Thinking differently about medicines

Offer non-drug therapies and pharmacotherapies for smoking cessation

Discuss the suitability of smoking cessation drugs and counselling support for the individual's circumstances.

Most smokers choose to quit without pharmacotherapy and many succeed. However, be aware that smokers may not readily seek effective help if they believe they should be able to quit without any assistance.¹

Inform smokers who are nicotine dependent that smoking cessation drugs, including nicotine replacement therapy (NRT), can roughly double the odds of success and are particularly effective if used with support to prevent relapse (e.g. **Arranging** follow-up from the practice).⁵

Counselling increases quit rates

Studies have found a benefit of brief or intensive counselling, with or without concomitant use of smoking cessation drugs.⁶

Practice nurses can give effective smoking cessation advice while reducing GP workload.^{7,8}

Internet-based support programs have not been studied extensively, but there is some evidence that they can increase quit rates.⁹

Offer a referral to Quitline to all smokers who wish to quit

Telephone counselling services, including Quitline, have demonstrated effectiveness.¹⁰ The Quitline active callback service is based on the smoker's planned quit schedule. In 1 study, 14% of those using the callback service were not smoking at 12 months, compared with 11% of those who participated only in patient-initiated calls.¹¹ Quitline staff can advise smokers about other support options, including local quit courses and groups.

NRT, varenicline and bupropion are first-line smoking cessation drugs¹²

Choose a smoking cessation drug after considering individual circumstances and preferences, contraindications, adverse effects, previous experience with pharmacotherapy, cost, convenience and efficacy.¹²

Varenicline produced superior quit rates to bupropion in several clinical trials, but indirect comparisons between varenicline and NRT have not found a clear difference.¹³ In the only direct comparison, more people using varenicline were continually abstinent after 3 months (56%) than with NRT patches (43%). However, at 1 year the difference was no longer statistically significant (26% vs 20%, $p=0.06$).¹⁴

Use bupropion and varenicline only in conjunction with counselling

There is no evidence that bupropion or varenicline is effective without counselling and support. Participants in the key varenicline trials received up to 10 minutes per week of face-to-face counselling during the 12-week treatment phase.^{15,16} Without support, patients may find it difficult to persist with treatment for the full course and may relapse more readily.

NRT has been shown to increase quit rates with or without counselling. However, the combination of NRT and counselling is more effective than either component individually.¹⁷

Optimise pharmacotherapy for individual circumstances

Smokers who have used smoking cessation drugs unsuccessfully may benefit from trying a different drug or a combination of products. However, NRT may still be useful on a repeat attempt.¹⁷ Reassure patients that it usually takes several attempts to quit successfully — an average of 4 in a recent survey.¹

For people considering NRT, discuss using a combination of dosage forms. Gum, tablets or lozenges may be useful in response to urges to smoke, while patches maintain steady nicotine levels. The combination of patch and lozenge yielded greater long-term abstinence than monotherapy with bupropion or nicotine patch in 2 recent trials.^{18,19} High strength nicotine products may be more appropriate for smokers with a high degree of nicotine dependence.

It is unclear if the combination of NRT and bupropion is more effective than either treatment alone; trials have had mixed results.¹⁸⁻²⁰ The safety and efficacy of varenicline in combination with bupropion or NRT has not been established.

Smoking cessation is the most effective intervention to slow progression to COPD

At least 1 in 6 people with COPD continues to smoke and can benefit from cessation advice.^{21,22}

Use spirometry to confirm COPD diagnosis and assess severity

Consider a diagnosis of COPD for any current or ex-smoker over the age of 35 years with breathlessness, chronic cough or sputum production.²³

Spirometric assessment is necessary to confirm the diagnosis of COPD and to select optimal therapy. Irreversible airflow limitation is defined as a post-bronchodilator FEV₁ (forced expiratory volume in 1 second) < 80% predicted, and an FEV₁ to FVC

(forced vital capacity) ratio < 0.7.^{2,23}

A large acute improvement in spirometry after inhaled bronchodilators suggests a diagnosis of asthma, i.e. an increase in FEV₁ of ≥ 400 mL.^{2,23}

Repeated spirometry is recommended annually as part of regular review, to quantify symptom control and the effects of treatment.²⁴

Start therapy with an inhaled short-acting bronchodilator

Use an inhaled short-acting beta₂ agonist or short-acting anticholinergic as needed.^{2,23,24}

Options are either:

- salbutamol (e.g. Ventolin) *OR*
- terbutaline (Bricanyl) *OR*
- ipratropium (e.g. Atrovent).

There is limited evidence for using tiotropium in mild COPD.²⁵

Add a regular long-acting bronchodilator only when needed

People who remain breathless or have exacerbations while using a short-acting bronchodilator *as needed* should add a regular long-acting bronchodilator.^{2,23,24} Regular dosing of a short-acting bronchodilator or combinations of short-acting bronchodilators are less effective than a regular long-acting bronchodilator and are no longer recommended.²

Options are either:

- tiotropium (Spiriva) *OR*
- salmeterol (Serevent)* *OR*
- eformoterol (Foradile, Oxis)*

Alternatively, for people with FEV₁ ≤ 50% and ≥ 2 exacerbations in the past 12 months, a fixed-dose combination inhaler is also an option, use either:

- fluticasone with salmeterol (Seretide)[†] *OR*
- budesonide with eformoterol (Symbicort)[‡]

Stop ipratropium if starting tiotropium.

See NPS News 68 (www.nps.org.au/news_68) for further options for intensifying treatment.

Review pharmacotherapy regularly

Review is recommended 4–8 weeks after changing or stepping up therapy, as well as annually for people with mild to moderate COPD and twice yearly for people with severe COPD.^{23,24}

- Ask about symptoms and difficulties with daily activities
- Quantify exercise capacity
- Ask for a demonstration of inhaler technique
- Ask about adverse effects

Ask how many times a week the patient forgets a dose

Many people with COPD use their long-acting inhaled medication irregularly.²² Self-management education (see below) may help to improve adherence to drug therapy.

Stop ineffective drug therapies

Long-acting bronchodilators should have a noticeable effect on symptoms, daily activities or exercise capacity within 4–8 weeks; improvements can occur without changes in FEV₁.²³ Lack of response to inhaled therapies in COPD is common and a prompt review allows the best therapy option to be found.

It may be difficult to assess the response to inhaled corticosteroids, as an effect on exacerbation rates may only be apparent after 6 months or so.²³

Regularly review inhaler technique

Ask patients to bring their inhalers to review appointments so they can demonstrate their inhaler technique. Ability to use an inhaler can decline within 2 months of first instruction.²⁶

* Single-ingredient inhalers containing either salmeterol or eformoterol are not PBS listed for COPD.

† Fluticasone with salmeterol (Seretide 250/25 MD and Seretide 500/50 DPI strengths only) is PBS listed for COPD in people with FEV₁ < 50% predicted who have a history of repeated exacerbations despite regular beta₂ agonist treatment.

‡ Budesonide with eformoterol (Symbicort) is not PBS listed for COPD.

Refer early for pulmonary rehabilitation to improve symptoms and quality of life

Inform people whose day-to-day life is affected by COPD symptoms about available pulmonary rehabilitation programs.

Pulmonary rehabilitation reduces dyspnoea and fatigue, improves exercise capacity, and has a positive effect on mood and quality of life.² Programs include elements such as exercise training, education, and assistance with smoking cessation.

Pulmonary rehabilitation is contraindicated for people who are unable to walk, have unstable angina or who have had a recent myocardial infarction.^{24,26}

The Australian Lung Foundation lists pulmonary rehabilitation programs by location on their website

(go to www.lungfoundation.com.au and choose 'Pulmonary Rehabilitation' from the main menu) or can provide advice by telephone on 1800 654 301.

Self-management education may be useful

COPD action plans and other forms of self-management education can enable people with COPD to recognise and react appropriately to an exacerbation of their symptoms, for example by self-initiating antibiotics or oral corticosteroids.^{27,28}

There has been insufficient research to determine whether self-management improves morbidity or mortality. Some forms of self-management education have been shown to reduce hospital admissions.^{27,28}

Links to online citations available at www.nps.org.au/ppr_50

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National Prescribing Service Limited (NPS) is an independent, not-for-profit organisation for quality use of medicines. NPS is funded by the Australian Government Department of Health and Ageing.

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