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Helping smokers with mental illness

Introduction

PEOPLE with mental illness have higher smoking rates, higher levels of nicotine dependence, lower cessation rates and a disproportionate health and financial burden from smoking compared with the general population.

This subgroup of smokers has poorer health and reduced life expectancy compared with those without mental illness, and much of the excess morbidity and mortality is due to smoking. They are far more likely to die from smoking-related disorders than from mental illness.

In spite of this, smokers with mental illness are less likely to be offered professional help to quit — in part because of the many myths and misconceptions about smoking in this population. For example, many health professionals mistakenly believe that people with mental illness are not interested or are unable to quit. On the contrary, smokers with mental illness are often highly motivated to quit and can quit successfully, albeit with lower success rates.

It is also commonly believed that smoking relieves stress and that quitting will worsen mental illness. In fact, research has consistently shown that the opposite is true. Patients are more relaxed and happier after they quit smoking (see 'The stress paradox').

Smoking cessation is an integral component of best-practice care for patients with mental illness, and GPs can play an important role in encouraging and assisting quit attempts in this vulnerable population. This How to Treat examines the close link between smoking and mental illness and provides practical advice to assist GPs in helping these smokers to quit.

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INSIDE

THE AUTHOR

DR COLIN MENDELSOHN
tobacco treatment specialist, the Sydney Clinic, NSW.

Prevalence

THIRTY-two per cent of Australians with a current mental illness smoke compared with 16% of those without mental illness.[1] Although smoking rates in Australia have declined significantly in recent years, the prevalence of smoking in patients with mental illness remains high.

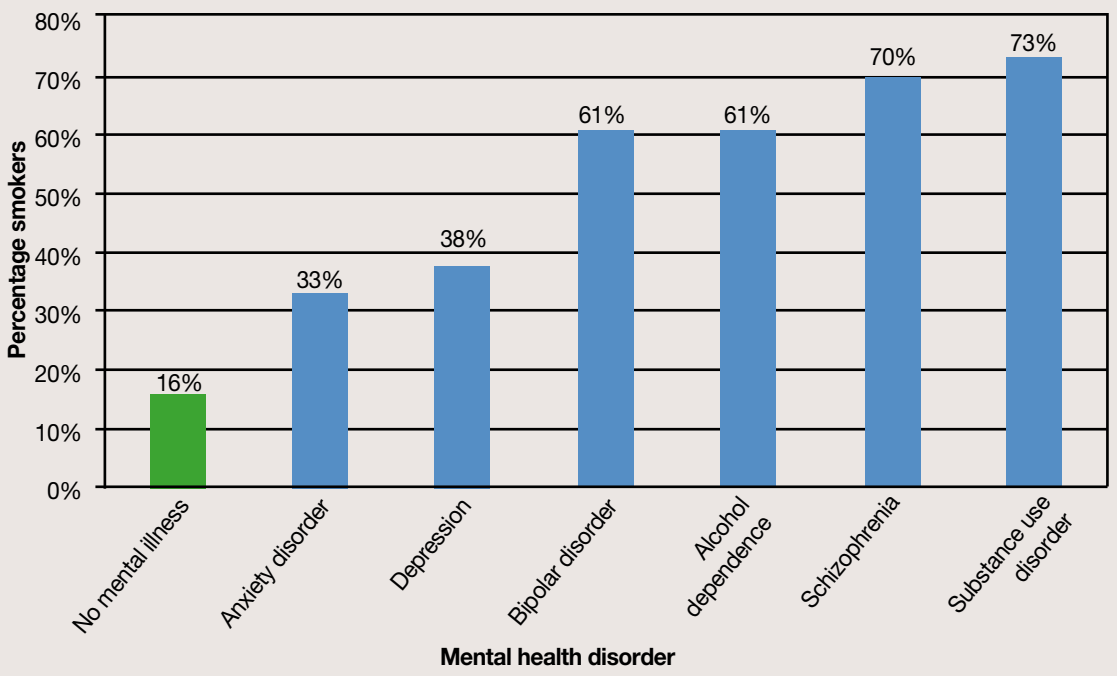
In general, the more severe the psychiatric illness, the higher the smoking rate (see figure 1).[1,2] Smokers with mental illness also smoke more heavily than other smokers.

There are a number of potential explanations for the higher smoking rates among people with mental illness. There is a degree of shared genetic predisposition to mental illnesses, such as depression and schizophrenia, and smoking. In addition, common environmental factors, such as psychosocial stressors, can increase the risk of both mental illness and smoking

Some people with mental illness use tobacco for self-medication. Nicotine has transient antidepressant and anti-anxiety effects and enhances concentration and attention. Cigarette smoke also reduces the side effects of many psychotropic medications, such as sedation, by accelerating their metabolism and lowering drug levels in the blood.[3]

There is also evidence of a bidirectional relationship by which smoking may increase the risk of mental illness, especially anxiety and depression.

Figure 1: Australian smoking rates by mental illness[1,2]



There is evidence of a bidirectional relationship by which smoking may increase the risk of mental illness, especially anxiety and depression.

Mental illness and physical health

PEOPLE with all categories of mental illness have significantly poorer physical health than the rest of the population and a reduced life expectancy. Australian men with mental illness live 16 years less and women live 12 years less than the general population, and this difference continues to widen.[4]

Much of the excess mortality is due to smoking-related illnesses — such as cardiovascular disease, respiratory disease and cancer — not suicide. People with alcohol and other substance use disorders are also more likely to die from a smoking-related disease than from their primary addiction.

Nicotine-dependent smokers also have about twice the risk of suicide attempts compared with non-smokers. After quitting, the risk of suicide drops dramatically.

The benefits of quitting

Health professionals are often reluctant to encourage quitting because of concerns that it will exacerbate the underlying mental illness. However, there is good evidence that these fears are unfounded. Meta-analyses in schizophrenia, depression and severe stable mental illness have not found any deterioration.[5,6]

Furthermore, smoking cessation is associated with improved mental wellbeing. A recent meta-analysis of 26 studies found that after quitting, smokers had significant long-term improvements in depression, anxiety, stress, psychological quality of life and positive affect compared with continuing smokers.[7] The improvement in mental health after quitting was as large as the effect of an antidepressant for a mood disorder.

Other studies have consistently found that smoking cessation is associated with substantial improvements in quality of life.[8] There are benefits in physical function, pain, general health perception, vitality, social function, emotional factors, self-control and mental health, which are maintained long term.

The stress paradox

Smokers often report that smoking helps them cope with stress. However, smoking actually increases stress levels overall, and former smokers often report feeling less anxious than when they smoked.

Much of the apparent benefit from smoking is due to the temporary alleviation of nicotine withdrawal symptoms. Smokers experience frequent periods of nicotine withdrawal — including anxiety, restlessness and irritability — between cigarettes. These symptoms improve after the next cigarette, erroneously creating the impression that smoking is relaxing (the stress paradox). When smokers quit, they no longer experience these small, repeated episodes of withdrawal during the day.

Smoking also increases stress in other ways. Nicotine is a stimulant that releases hormones, such as noradrenaline and cortisol. Smokers are also stressed from often thinking about when and how they can smoke next, the financial stress of smoking, the social disapproval of their habit and the effect on their health.

While smoking does relieve the stress of nicotine withdrawal, it does not relieve anxiety or psychological stress. Studies have found that when smokers are stressed — for example, by a scary video — smoking does not relieve their discomfort.

GPs should advise smokers that smoking is not an effective strategy for coping with stress. Healthier strategies should be discussed.

Assessment of nicotine dependence

SMOKERS with mental illness have higher levels of nicotine dependence than other smokers. The level of nicotine dependence is a predictor of withdrawal symptoms and the intensity of treatment required. Dependence can be assessed by asking patients the following question: "How many minutes after waking do you have your first cigarette of the day?" Smoking within 30 minutes of waking is a reliable indicator of nicotine dependence. Smoking within five minutes of waking indicates more severe dependence.

Cravings and withdrawal symptoms experienced in previous quit attempts are also a useful guide. The number of cigarettes smoked a day is less predictive; however, smoking more than 10 cigarettes a day is associated with a higher likelihood of dependence.

Smoking and specific disorders

Anxiety disorders

ANXIETY disorders (generalised anxiety disorder, PTSD, panic disorder, agoraphobia, simple phobia and social phobia) comprise the largest mental health diagnostic group among smokers. People with anxiety disorders have about double the smoking rate of the general population.

A large trial in patients with anxiety disorders demonstrated a 28% quit rate at six months compared with 36% for smokers without an anxiety disorder.

Depression

People with depression are also twice as likely to smoke; however, they are highly motivated to quit, possibly more than smokers in the general population.

A meta-analysis of 42 trials found that smokers with a history of depression had a 19% lower rate of long-term abstinence compared with smokers without a history of depression.[9] Quit rates were lower in those with recurrent depression than in those with a single episode.

Smokers with a history of depression experience more severe negative mood, cravings and withdrawal when quitting than those without depression and are more likely to relapse. However, there is no increase in the risk of major depression or suicide during or after cessation.[5] On the contrary, many studies report an improvement in mood after treatment.

Schizophrenia

Seventy per cent of patients with schizophrenia smoke, and they smoke more intensely than other smokers, having more puffs per cigarette and a greater puff volume. Smoking improves the cognitive deficits in schizophrenia, such as attention and memory deficits, and may improve negative symptoms, including lack of motivation and energy. Smoking also offsets some of the side effects of antipsychotic medication, such sedation and weight gain.

Smokers with schizophrenia are at least as motivated to quit as the general population. Importantly, smoking cessation does not generally cause deterioration in their mental health.[5]

Smokers with schizophrenia have additional barriers to quitting — such as higher nicotine dependence, diminished cognitive and coping skills, less social support and boredom — and have overall quit rates that are only about half those of the general population.

Bipolar disorder

Although 60% of patients with bipolar disorder smoke and most want to quit, there have been no randomised controlled trials (RCTs) of smoking cessation in these patients.

Substance use disorders

Substance users have very high smoking rates. They are as motivated to quit as the general population but have more difficulty quitting.

Tobacco use has often been regarded as a secondary concern for people with substance use disorders and has traditionally been neglected. However, substance users are more likely to die from tobacco-related causes than from their primary addiction.[10]

Smoking has also erroneously been considered a useful coping strategy for substance users, with the common concern that quitting will negatively affect treatment outcomes. However, research has found that the opposite is true. Quitting smoking does not compromise the treatment of other drugs and can actually improve recovery.[11]

Smoking cessation at the same time as treatment for alcohol and other drugs is now best practice. Compared with delayed treatment, concurrent treatment is associated with increased sobriety and abstinence from other substances by 25% at 12 months.[11]

Treatment

SMOKERS with mental illness are often excluded from clinical trials, so the evidence base for treatment is limited. However, guidelines advise the same evidence-based therapies as for the general population.[12] As with other smokers, the best results occur when behavioural counselling and support are combined with pharmacotherapy. More intensive counselling and extended treatments and support may be required.

The underlying mental illness may need to be monitored more carefully during smoking cessation. It may be helpful to engage the patient's mental health professional for extra support during the quitting attempt, particularly to help manage anxiety or depressed mood.

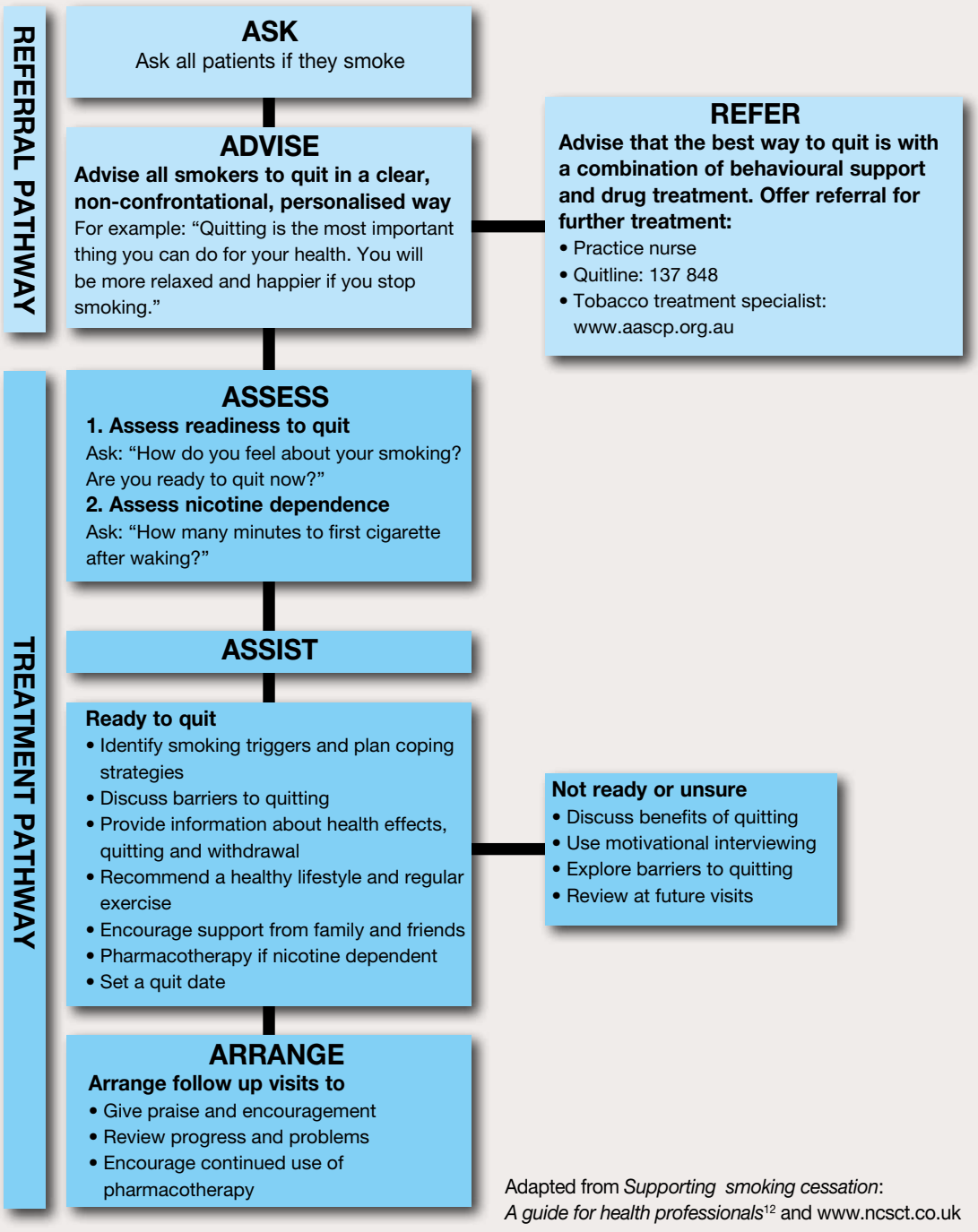
Intervention is based on the 5As framework, as described in the Australian smoking cessation guidelines (see figure 2).[12] The following are the key features:

- Ask: Regularly ask all patients if they smoke, and record the information in the medical record.
- Advise: Advise all smokers to quit in a clear, unambiguous way, such as, "The best thing you can do for your health is to stop smoking."
- Assess: Assess smokers for their readiness to quit, barriers to quitting and the level of nicotine dependence.
- Assist: Offer advice, pharmacotherapy and support to smokers who are ready to quit.
- Arrange: Provide follow-up visits for additional advice and support.

When time is short, smokers can be referred elsewhere for treatment — for example, to the practice nurse, Quitline or a tobacco treatment specialist (see figure 2).

Quitting is a chronic, relapsing journey for most smokers, and failed attempts are a normal part of the quitting process. Smokers should be re-engaged and encouraged to keep trying to quit at regular intervals.

Figure 2: Treatment and referral pathways for smoking cessation



Adapted from *Supporting smoking cessation: A guide for health professionals*[12] and www.ncsct.co.uk

Counselling and lifestyle changes

Key counselling strategies for smokers with mental illness include the following:

- Provide the patient with information about nicotine withdrawal symptoms and the relapsing nature of quitting. Review the reasons why the smoker wants to quit, and discuss the positive health benefits of quitting.
- Identify smoking triggers and plan strategies to cope with them. Common cues include a cup of coffee, drinking with friends, after meals or when feeling stressed. Effective strategies are distraction and avoidance. For example, instead of smoking after dinner, the patient could clean their teeth, clear the table, wash the dishes or go for a walk.
- Identify and discuss barriers to quitting. Smokers often have barriers that can undermine a quit attempt. Provide accurate information about these barriers, and help the smoker develop strategies to deal with them (see table 1).
- Recommend the 'not-a-puff' rule.
- Get support from family and friends.
- Set rewards — the money saved on smoking can be used to purchase well-deserved treats.
- Consider setting a quit day in the next couple of weeks.

Smokers with mental illness often have unhealthy lifestyle habits. Changing these behaviours can improve quit rates as well as general health:

- Exercise regularly: Exercise

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reduces cravings, withdrawal symptoms, weight gain and stress. Exercise is especially beneficial for smokers with depression, in whom it reduces the risk of relapse by almost half over the first three years.[14]

- Reduce alcohol: Alcohol is a powerful trigger to smoke for many people. It is best to avoid alcohol for the first 2-3 weeks after quitting and reduce overall intake if possible.
- Reduce caffeine: Smokers should reduce their intake of caffeine by half after quitting.
- Keep busy and active: Plan activities to fill the extra time available after quitting.

Arrange to see the patient for support and advice after quitting, especially in the first few weeks when the risk of relapse is greatest. Smokers with mental illness may benefit from additional support. At follow-up visits, provide praise and encouragement, review any slips and ensure the correct and adequate use of medication. Follow-up visits have been shown to increase the chance of success.

Anxious smokers should be taught alternative ways to manage their anxiety. Discuss stress management strategies with the patient, and consider engaging the support of their mental health professional. Stress management strategies include the following:

- Exercise
- Deep breathing, progressive muscular relaxation, meditation
- Counselling, CBT, mindfulness, problem-solving, assertiveness training, conflict resolution
- Tai chi, yoga
- Reading, socialising, music

For smokers with current or past depression, adding mood management strategies, such as CBT, to standard treatment increases success rates by over 40%.[15]

Mindfulness is increasingly being used to treat mental illness, and it may also be beneficial for concurrent nicotine dependence. Several studies have found that it can reduce cravings, withdrawal symptoms, cigarette consumption and might improve rates of abstinence.

Pharmacotherapy

Approved products for smoking cessation in Australia are nicotine replacement therapy (NRT), varenicline and bupropion (see table 2). Australian guidelines recommend pharmacotherapy for all nicotine-dependent smokers who wish to quit.[8]

All stop-smoking medications work by reducing cravings and relieving nicotine withdrawal symptoms, such as irritability, frustration, restlessness, difficulty concentrating and depressed mood.

Patients with mental illness can be offered the same pharmacotherapies as the general population. Because of higher levels of nicotine dependence, larger doses of NRT, combination pharmacotherapy and a longer duration of therapy may be required. The most effective pharmacotherapies are combination NRT (nicotine patch plus a short-acting nicotine preparation) and varenicline, both of which roughly triple the quit rate compared with placebo.[16]

Table 1. Barriers to smoking cessation[12]

Barrier	Discussion
Weight gain	Many smokers with mental illness are overweight because of an unhealthy lifestyle and the effects of psychotropic medication; weight gain, on average, is 2-3kg five years after quitting compared with continuing smokers; intensive dietary advice is not recommended; advise patients to eat sensibly and exercise regularly; focus on stopping smoking in the short term, and deal with any weight gain later.[13]
Coping with stress	Explain to smokers that smoking actually increases stress and that they will be more relaxed after quitting and enjoy improved mental health; suggest other healthier and more effective ways to relax.
Withdrawal from nicotine	Smokers with mental illness are more nicotine dependent and are likely to have more severe cravings and nicotine withdrawal; nicotine withdrawal symptoms are at their worst in the first week and typically last 2-4 weeks; they can usually be controlled with stop-smoking medications and behavioural strategies, such as distraction techniques and avoiding smoking triggers.
Fear of failure	Explain that failed attempts are a normal part of the quitting journey; smokers learn from these efforts, and they increase the chance of success next time; furthermore, with the right professional counselling, support and medication, the odds of success are much higher.
Peer or social pressure	People with mental illness are more likely to have smoking peers; it may be best to avoid these smoking friends for the first few weeks; suggest asking friends not to offer cigarettes and, if possible, not to smoke around your patient; if the partner smokes, ask him or her to smoke outside.

Nicotine replacement therapy

NRT is available in a long-acting form (nicotine patch) and a variety of fast-acting oral forms (gum, inhalator, mouth spray, lozenge, oral strip). NRT monotherapy (using a single nicotine product) increases quit rates by 60% compared with placebo.[17]

The patch is applied to the skin daily and provides continuous protection against background cravings. The oral forms give faster, flexible relief for breakthrough cravings. Advise patients to carry a quick-acting nicotine product, such as the mouth spray or oral strips, during treatment and after quitting to help them cope with smoking triggers.[18]

Combining the nicotine patch with an oral form of NRT is significantly more effective than the patch alone and is recommended for most nicotine-dependent smokers using NRT.[18] Treatment is usually started with a daily nicotine patch, and oral NRT products are added on as needed or on a regular basis, for example, hourly.

In general, patients often use too little nicotine; the dose should be increased until cravings and withdrawal symptoms are relieved. Patients also tend to stop NRT too soon and should be encouraged to take a full course of at least 8-12 weeks.[18]

Starting the patch two weeks before quit day increases quit rates by a further 35% compared with starting on quit day.[8] Adding a second patch may be required for more dependent smokers and provides a modest additional increase in quit rates.

Adherence to NRT is often poor, partly because of misguided concerns about safety and addictiveness. Research has found that if smokers are given accurate information about NRT, they are much more likely to use it. Patients should be advised that nicotine causes relatively few significant health effects, except in pregnancy, and NRT is always safer than smoking. It delivers nicotine more slowly than smoking and in lower doses, and the risk of addiction is low.[18]

It is also vital to instruct patients on the correct use of the oral forms of NRT as they are often used incorrectly, resulting in lower effectiveness and more side effects (see table 2). Patients should be advised not to drink or eat immediately before and while using any form of oral NRT.

Varenicline

Varenicline is the most effective monotherapy for smoking cessation.[16] As well as reducing cravings and nicotine withdrawal symptoms, it lessens the reward or enjoyment of smoking.

RCTs of varenicline in smokers with depression and schizophrenia have found it to be safe and effective. Varenicline may be especially useful for smokers who are also

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Table 2. Approved drugs for treating nicotine dependence [12, 18]

Drug	Course of treatment	Rx	Common adverse effects	
Nicotine replacement therapy				**Directions for use**
Nicotine patch 24 hour: 21mg, 14mg, 7mg 16 hour: 25mg, 15mg, 10mg	12 weeks	PBS^ OTC	Insomnia, disturbed dreams (24-hour patch), skin irritation	Start with a full-strength patch if ≥10 cigs a day; apply in morning to upper arm, chest or back, rotating application site daily.
Nicotine mouth spray 1mg per spray	12 weeks	OTC	Mouth/throat irritation, nausea, dyspepsia, headache, hiccups	Use 1-2 sprays every 30-60 minutes for fast craving relief. Spray under tongue or onto inside of cheek.
Nicotine oral strips 2.5mg	12 weeks	OTC	Nausea, throat irritation, hiccups, headache	Fast-acting craving relief for less dependent smokers (TTFC[a] ≥30 mins); place on tongue and apply to palate; dissolves in 2-3 mins.
Nicotine lozenges 2mg, 4mg	12 weeks	OTC	Nausea, hiccups, heartburn, flatulence	Use 4mg if TTFC [a] <30mins Allow to dissolve in mouth over 20-30min, moving around from time to time.
Nicotine mini lozenges 1.5mg, 4mg	12 weeks	OTC	Nausea, hiccups, heartburn, flatulence	Use 4mg if TTFC [a] <30mins. Allow to dissolve in mouth over 10-15min, moving from around from time to time.
Nicotine gum 2mg, 4mg	12 weeks	OTC	Hiccups, nausea, jaw discomfort, mouth/throat irritation	Use 4mg if TTFC [a] <30mins. Instruct patients on 'park and chew' technique.[b] Avoid in people with dentures.
Nicotine inhalator 15mg per cartridge	12 weeks	OTC	Cough, mouth/throat irritation, nausea	Frequent, shallow puffs. Satisfies hand-to mouth habit.
Non-nicotine tablets				**Comments**
Varenicline 0.5mg, 1mg	12-24 weeks	PBS	Nausea, insomnia, disturbed dreams, headache, drowsiness	Take with a meal to reduce nausea. No known drug interactions. Contraindicated in pregnancy and lactation.
Bupropion 150mg	9 weeks	PBS	Seizure risk 1:1,000. Insomnia, headache, dry mouth	Elevated seizure risk. Numerous potential drug interactions. Contraindicated in pregnancy and lactation.

^ Available OTC if does not meet PBS criteria
a Time to first cigarette
b Chew gum slowly until peppery taste appears, place gum in the buccal pouch until taste fades, chew again until taste appears, repeat cycle for 30 minutes and then discard, avoiding swallowing nicotine

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heavy drinkers because it reduces alcohol cravings and intake — independently of smoking cessation.

The starting dose of varenicline is 0.5mg daily for three days, then 0.5mg twice daily for four days and then 1mg twice daily. About 30% of patients get nausea from varenicline; however, it is usually mild to moderate and generally settles within a few days. Nausea can be minimised by a slow up-titration and by taking the tablets with a full meal.

The patient can quit any time between days 8 and 35, either with a predetermined quit date or when the smoker feels ready. A minimum course of 12 weeks is recommended. An additional 12-week course can help prevent relapse and increase quit rates further.

Since November 2014, a second six-month course of varenicline can be prescribed in a 12-month period on the PBS if the smoker has relapsed. Retreatment has the same success rates as the initial course.

As varenicline does not undergo liver metabolism, it has no clinically significant drug interactions and can be used in combination with psychotropic medications.

After varenicline was initially marketed, there were widespread reports of depressed mood, agitation, changes in behaviour, suicide ideation and suicide in patients taking the drug. Subsequently, large population studies, RCTs and meta-analyses have not found an increased risk or causal link with varenicline. RCTs in patients with depression and schizophrenia have also not found any increased risk of neuropsychiatric adverse events.

Varenicline can be confidently prescribed for smokers with stable mental illness.[12] The current guidelines recommend advising patients of the reported side effects and to watch for any changes in mood or behaviour. Patients should stop the drug at the first sign of unexplained symptoms and contact their doctor.

Bupropion

Bupropion is an antidepressant that has similar efficacy to a single NRT agent for smoking cessation.[16] Although it can relieve depressive symptoms, there is no evidence that it is more effective in smokers with current or past depression than in those without. There is also good evidence for the effectiveness of bupropion in schizophrenia, with a Cochrane review finding it is well tolerated and triples quit rates compared with placebo at six months.[19]

Bupropion is commenced one week prior to smoking cessation. Treatment is started with a 150mg tablet daily for three days, followed by one tablet twice daily for a nine-week course. The main concern with the use of bupropion is a small risk of seizure (about one in 1000). The drug is contraindicated in patients with a history of seizures, eating disorders, head trauma and alcohol dependence.

Bupropion has a wide range of potential drug interactions. It should be used with caution with other antidepressants and other antipsychotics because co-administration can lower the seizure threshold. It is contraindicated with monoamine oxidase inhibitors. Bupropion also induces the metabolism of serotonin re-uptake inhibitors, tricyclic antidepressants, mirtazapine and antipsychotics, resulting in increased plasma levels of these drugs.

Harm reduction

Many smokers with mental illness are not able or willing to quit but are prepared to reduce their cigarette intake. Harm reduction involves providing the nicotine that smokers need in a safer form without the toxins that cause most of the adverse health effects of smoking. Long-term use of nicotine is thought to be generally safe, except in pregnancy.

The use of a nicotine patch while smoking is safe and roughly doubles the chance of quitting over time. NRT also reduces the intensity of smoking and the intake of toxins; however, it is not known if this translates into improved health outcomes.

Another promising alternative is the electronic cigarette (e-cigarette). E-cigarettes are battery-powered devices that simulate smoking by delivering nicotine and addressing the behavioural, sensory and social aspects of smoking. As there is no combustion, there is no tar or carbon monoxide in the inhaled aerosol, and e-cigarettes are thought to be at least 95% safer than smoking.[20]

Smokers with mental illness can reduce their cigarette intake using e-cigarettes, and they find them more acceptable than NRT.[21]

A study of smokers with schizophrenia found that e-cigarettes substantially decreased cigarette consumption and appeared to be a safe harm-reduction strategy in this challenging population.[22] Patients who quit smoking altogether and replace it with long-term e-cigarette use could expect substantial health gains.

Online resources

RACGP
Supporting smoking cessation: A guide for health professionals
bit.ly/1JwPXGZ
Smoking cessation pharmacotherapy treatment algorithm
bit.ly/1ihe7ym

Royal Australasian College of Physicians
Smoking cessation training module (login required)
elearning.racp.edu.au
(go to the tab 'Addiction Medicine')

Quitnow
Quitnow mental health specific information, go to the tab 'I want info on' and then 'Mental illness and quitting' (information sheets for health professionals and patients)
www.quitnow.gov.au

NPS Medicinewise
Stop smoking — what works for your patients?
bit.ly/1ihfe1b

Australian Association of Smoking Cessation Professionals
aascp.org.au

SANE
Go to the tab 'Information' and select 'Factsheets + Podcasts'. Under 'Mind + Body' select 'Smoking and mental illness (patient information sheet)
www.sane.org

National Centre for Smoking Cessation and Training
www.ncsct.co.uk

References

Available on request from howtotreat@cirrusmedia.com.au

Declaration of interest statement

The author is a member of Pfizer Australia's Advisory Board and has received payment for consultancies, lectures, travel and meeting expenses unrelated to this work from Pfizer, GlaxoSmithKline and Johnson & Johnson Pacific.

Interactions between smoking and psychotropic drugs

TOBACCO smoke reduces the blood levels of a number of psychotropic drugs by inducing the cytochrome P450 enzyme CYP1A2 (see table 3).[3] The plasma levels of these drugs can rise significantly within days of quitting or reducing cigarette consumption to fewer than seven cigarettes a day. This effect is largely due to the polycyclic aromatic hydrocarbons in smoke, not nicotine. NRT does not affect medication levels.

Drugs with a narrow therapeutic range, such as clozapine and olanzapine, may require early dose reduction after quitting. Patients need monitoring for increased sedation or other side effects, as well as more regular testing of clozapine levels. However, many quit attempts will not be successful, and medication doses may need to be increased promptly if smoking is resumed.

Reductions in caffeine intake may also be necessary. After quitting, rising caffeine levels can cause caffeine toxicity, which can mimic nicotine withdrawal or an exacerbation of mental illness.

Table 3: Clinically relevant psychotropic drug interactions with smoking[3]

Class	Medication	Clinical importance
Antipsychotics	Clozapine, olanzapine	+++
	Haloperidol, chlorpromazine, fluphenazine	+
Antidepressants	Fluvoxamine	++
	Duloxetine, mirtazapine, imipramine	+
Others	Benzodiazepines, beta blockers	+
Lifestyle	Alcohol, caffeine	+++

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Case study

KATE is a 43-year-old office worker who lives with her non-smoking husband and two teenage children. She has a history of recurrent major depression but is currently stable on sertraline 50mg daily.

She smokes 16 cigarettes a day and has drinks after work 'with the girls' once or twice a week. She goes for a walk with her husband on Sunday mornings but does no other exercise. She drinks five cups of coffee and has a 600mL bottle of diet cola each day.

Kate uses smoking to relax when feeling stressed. She also smokes with coffee and when drinking alcohol.

Kate has tried to quit several times in the past using nicotine patches or gum. She is reluctant to try again because she is not sure she can succeed and is concerned about gaining weight.

You explain to Kate that failed attempts are a normal part of the quitting journey and encourage her to keep trying. You tell her that smoking is not an effective strategy for stress and that her mental health and depression will likely improve after quitting. Kate agrees to try again.

You tell her that the average weight gain is only 2-3kg after quitting, but this can be reduced with regular exercise and sensible eating. While the weight gain is important to her, you encourage her to focus on stopping smoking for now and deal with the weight gain later. Kate agrees to start regular exercise, which will also help her depression.

You discuss her smoking triggers and develop some coping strategies. For example, she agrees to forgo drinks with the girls for 2-3 weeks to avoid the temptation to smoke. She should also reduce her caffeine intake by half to avoid caffeine toxicity after quitting.

Kate wants to try a different medication this time — so you suggest varenicline. You advise her to take the tablets with meals to reduce the risk of nausea. She should quit smoking when she feels ready over the next few weeks and should continue the tablets for at least 12 weeks.

You explain that there have been reports of anxiety, depression, changes in behaviour and suicide in people taking the drug but that there is no scientific evidence that varenicline has caused those problems. You advise Kate and her husband to watch for any unexplained symptoms and to contact you if they are concerned at any time.

Kate is excited that she may be able to do it this time, and she will ask her husband to support her. You arrange an appointment for a follow-up visit in one week.

Summary

One in three people with mental illness smoke.

Smokers with mental illness are far more likely to die from smoking-related disease than from mental illness.

Smoking actually increases stress levels, and smokers are more relaxed and less depressed after quitting.

Smokers with mental illness are as motivated to quit as other smokers and can quit successfully, albeit with lower success rates.

Quitting does not generally lead to an exacerbation of mental illness; on the contrary, mental health often improves.

The same evidence-based therapies are used as are used for the general population; however, more intensive and prolonged support may be needed.

Harm-reduction strategies should be considered for those not willing or able to quit.

Doses of some psychotropic medications may need to be reduced after quitting.

How to Treat Quiz

Helping smokers with mental illness — 2 October 2015

INSTRUCTIONS

Complete this quiz online and fill in the GP evaluation form to earn 2 CPD or PDP points.
We no longer accept quizzes by post or fax.

The mark required to obtain points is 80%. Please note that some questions have more than one correct answer.

GO ONLINE TO COMPLETE THE QUIZ

www.australiandoctor.com.au/education/how-to-treat

1. Which THREE statements regarding people with mental illness are correct?
a) People with mental illness have higher smoking rates compared with the general population.
b) People with mental illness have higher levels of nicotine dependence compared with the general population.
c) People with mental illness are more likely to die from this condition than from smoking-related disorders.
d) People with mental illness have lower smoking cessation rates compared with the general population.

2. Which TWO statements regarding the prevalence of smoking and mental health are true?
a) Although smoking rates in Australia have declined significantly in recent years, the prevalence of smoking in patients with mental illness remains high.
b) In general, the more severe the psychiatric illness, the lower the smoking rate.
c) Cigarette smoke reduces the metabolism of many psychotropic drugs, raising drug levels in the blood.
d) Smokers with mental illness smoke more heavily than other smokers.

3. Which THREE statements are correct?
a) People with all categories of mental illness have significantly poorer physical health than the rest of the population.
b) Much of the excess mortality in those with mental illness who smoke is related to suicide.
c) Smoking cessation is associated with improved mental wellbeing.
d) Smoking cessation is associated with improvements in quality of life.

4. Which TWO statements regarding the stress paradox are correct?
a) Smokers often report that smoking helps them cope with stress.
b) Smoking relieves stress.
c) Nicotine is a stimulant that releases noradrenaline and cortisol.
d) Smokers often have lower levels of stress.

5. Which THREE statements regarding nicotine dependence are correct?
a) The level of nicotine dependence is a predictor of withdrawal symptoms and the intensity of treatment required.
b) Dependence can be assessed by asking patients the following question: "How many minutes after waking do you have your first cigarette of the day?"
c) Smokers with mental illness have lower levels of nicotine dependence than other smokers.
d) Smoking within 30 minutes of waking is a reliable indicator of nicotine dependence.

6. Which THREE statements regarding smoking and specific disorders are correct?
a) Depressive disorders comprise the largest mental health diagnostic group among smokers.
b) People with anxiety disorders have about double the smoking rate of the general population.
c) Patients with depression are highly motivated to quit, but quit rates are lower in those with recurrent depression than in those with a single episode.
d) There is no increase in the risk of major depression or suicide during or after cessation.

7. Which TWO statements regarding smoking and specific disorders are correct?
a) Smoking improves the cognitive deficits in schizophrenia and may improve negative symptoms.
b) Patients with schizophrenia often deteriorate when they quit smoking.
c) Substance users have very high smoking rates.
d) When treating patients who smoke for substance abuse, wean off all the other substances first and deal with the smoking last.

8. Which THREE statements regarding treatment are correct?
a) The best results occur when behavioural counselling and support are combined with pharmacotherapy.
b) Effective strategies for coping with smoking triggers are distraction and avoidance.
c) In those with mental illness, it is often best to stop trying to get them to quit after the second failed attempt.
d) You should identify and discuss barriers to quitting.

9. Which THREE statements regarding treatment are correct?
a) Australian guidelines recommend pharmacotherapy for all nicotine-dependent smokers who wish to quit.
b) Varenicline and bupropion are available over the counter.
c) All stop-smoking medications work by reducing cravings and relieving nicotine withdrawal symptoms.
d) Combining the nicotine patch with an oral form of nicotine replacement therapy is significantly more effective than the patch alone.

10. Which THREE statements regarding treatment are correct?
a) Varenicline is the most effective monotherapy for smoking cessation.
b) Bupropion is contraindicated in schizophrenia.
c) Bupropion is an antidepressant that has similar efficacy to a single nicotine replacement therapy agent for smoking cessation.
d) Bupropion has a wide range of potential drug interactions.

CPD QUIZ UPDATE

The RACGP requires that a brief GP evaluation form be completed with every quiz to obtain category 2 CPD or PDP points for the 2014-16 triennium. You can complete this online along with the quiz at **www.australiandoctor.com.au.** Because this is a requirement, we are no longer able to accept the quiz by post or fax. However, we have included the quiz questions here for those who like to prepare the answers before completing the quiz online.

Australian Doctor Education

HOW TO TREAT Editor: **Dr Claire Berman**
Email: **claire.berman@cirrusmedia.com.au**

NEXT WEEK

NEXT week's How to Treat discusses the management of two common injuries in the 'weekend warrior': acute Achilles tendon rupture, and the ankle sprain that doesn't progress and fails to heal. The authors are **Dr Martin Sullivan**, foot and ankle surgeon, Sydney, NSW; **Victoria Webster**, research fellow, Sydney, NSW; and **Dr Ethan Fraser**, clinical research fellow, Sydney, NSW.