

# Smoking cessation in people with alcohol and other drug problems

Colin P Mendelsohn, Alex Wodak AM

## Background

People who consume alcohol and other drugs are at particularly high risk of harm from smoking, yet tobacco use is commonly neglected in this patient group.

## Objectives

The objectives of this article are to increase awareness of the high risk of tobacco-related harm in people who consume alcohol and other drugs, identify the barriers to quitting and provide practical guidelines to assist quitting.

## Discussion

People who are dependent on alcohol and other drugs are far more likely to die from a smoking-related illness than from their other drugs. Most are motivated to quit smoking; however, their quit rates are lower than in the general population. Substance users who also smoke can usually be treated with similar behavioural and pharmacological treatments as others who smoke, but generally require more intensive and longer treatment. Quitting smoking at the same time as undergoing other drug treatment does not undermine drug treatment outcomes and may improve them. Smoking cessation should be integrated into the routine care of patients who consume alcohol and other drugs.

People who are dependent on alcohol and other drugs have very high smoking rates and are far more likely to die from a smoking-related illness than from their primary drug problem.<sup>1,2</sup> Smoking cessation in this at-risk group is often rated as a lower priority and frequently delayed or ignored.<sup>3-5</sup>

People with risky use of alcohol and other drugs frequently present with a crisis that is usually given precedence over smoking. In addition, there are many misconceptions about smoking cessation in this population that undermine intervention. For example, health professionals often think that people who are dependent on alcohol and other drugs are unmotivated or unable to quit smoking.<sup>5</sup> In addition, many people with alcohol and other drug problems incorrectly believe that quitting will undermine their recovery from other drugs or that smoking relieves stress.<sup>6</sup>

This article examines why general practitioners (GPs) should prioritise smoking cessation in substance users who also smoke. It also explores the relationship between smoking and other drugs, particularly alcohol, cannabis, opioids and stimulants (Box 1), and the disproportionate adverse health effects from smoking in people who consume alcohol and other drugs. Common barriers to intervention are described, along with practical strategies for helping patients who are dependent on alcohol and other drugs to quit smoking.

## Prevalence

In 2007, 73% of people in Australia with drug-use disorders and 61% of those with alcohol dependence smoked, compared with 22% of the population overall.<sup>7</sup> The smoking rate in people who are dependent on alcohol and other drugs has remained high in recent decades, while declining appreciably in the general community.<sup>8</sup>

Several explanations have been proposed for this high-sustained smoking rate.<sup>9,10</sup> There is a shared genetic predisposition to nicotine and other drugs of dependence. Nicotine and other addictive drugs trigger the release of dopamine in the reward pathway, which creates pleasure, and co-administration has an additive effect that enhances enjoyment. Mental health conditions are common in people who are dependent on alcohol and other drugs who may use nicotine to relieve psychiatric symptoms.<sup>9</sup> Smoking is also a gateway to illicit drugs<sup>11</sup> and is part of the drug-taking culture.

## Health impact

Many people who are dependent on alcohol and other drugs, as well as health professionals, underestimate the relative health risk of smoking, compared with other drug use.<sup>12</sup> Substance users are at particularly high risk of harm because of high smoking rates, heavier smoking and earlier initiation.<sup>3</sup> There is also a synergistic interaction between smoking and alcohol, which amplifies some health risks (eg head and neck cancers).<sup>13</sup>

**Box 1. Smoking and specific drugs****Alcohol<sup>10,20</sup>**

- Nicotine and alcohol each enhance the enjoyment of the other through their common action in the reward pathway, where both trigger the release of dopamine.
- Drinking alcohol increases the urge to smoke, partly due to the disinhibiting effects of alcohol and conditioned association of the two behaviours.
- Smoking increases the urge to drink and is a risk factor for relapse to alcohol after alcohol treatment.
- Smoking counters the sedative and cognitive effects of alcohol and reduces the severity of alcohol withdrawal.
- Long-term quit rates are low, especially in heavy drinkers.

**Opiates<sup>3,17</sup>**

- Users of opiates and opioid agonists (eg methadone, buprenorphine) have the highest smoking rates (>85% smoke).
- Methadone may increase the reinforcing effects of cigarettes. People who use methadone smoke more heavily in the four hours after each dose.
- Nicotine attenuates some side-effects of methadone such as sedation and reduced attention.
- Opiate users have high levels of psychiatric comorbidity and stress, and may use smoking as an anxiolytic or antidepressant.
- Most opiate users are interested in quitting smoking but long-term quit rates are very low.

**Cannabis<sup>30</sup>**

- About 50% of adults with cannabis-use disorders are currently smoking tobacco.
- Two out of three users combine cannabis with tobacco ('mulling'), which can lead to nicotine dependence and cigarette smoking.
- Quitting both together is recommended as continuing to use cannabis can make quitting tobacco harder.
- Cannabis and tobacco have similar withdrawal syndromes and the combined symptoms may be more severe.
- Behavioural strategies used for tobacco can also help reduce or stop cannabis.

**Stimulants (eg cocaine, meth/amphetamine)<sup>31,32</sup>**

- More than 80% of people who use stimulants smoke tobacco.
- Cocaine administration increases cigarette smoking and nicotine use increases the severity of cocaine use.
- Nicotine withdrawal (quitting smoking) is associated with reduced cravings for stimulants.
- A recent study has found that quitting smoking during stimulant treatment improved smoking abstinence and did not undermine stimulant outcomes.

Many patients with alcohol and other drug problems overcome their primary addiction, then die from a tobacco-related illness.<sup>3</sup> One study found that 51% of patients who were followed for 10 years after inpatient alcohol and drug treatment died of tobacco-related causes.<sup>1</sup> In another study of people dependent on heroin, the mortality rate of those who smoked was four times that of those who did not smoke at 24-year follow-up.<sup>2</sup>

People with alcohol or other drug problems have high rates of mental illness and often smoke to relax or reduce stress. Although many people who smoke

believe that smoking helps them to cope with stress, the opposite is true. Smoking actually increases stress levels overall and people who smoke report reduced anxiety, improved mood and quality of life after quitting.<sup>14</sup>

**Motivation and quit rates**

Contrary to popular belief, substance users who smoke are as motivated to quit smoking as those who smoke in the general population.<sup>3,5,15</sup> Most have tried to quit repeatedly and many have made a serious attempt to quit in the previous year.<sup>3</sup> However, motivation to quit can

be undermined by misguided concerns. Common fears are that quitting smoking will jeopardise recovery from other drugs or that it will remove a coping tool for managing withdrawal from other drugs<sup>6</sup> (Table 1).

Although people who consume alcohol and other drugs smoke more heavily and are more nicotine dependent than others who smoke, some do quit smoking.<sup>3</sup> However, quit rates are lower than in the general population and relapse is more common.<sup>3,15</sup> The lowest long-term quit rates are in opiate and cocaine users.<sup>3,16,17</sup>

**Smoking cessation improves substance use outcomes**

Despite misperceptions to the contrary, quitting smoking improves long-term abstinence from alcohol and illicit drugs. For example, one study found that alcohol and drug users who quit smoking in the first year after treatment were two to three times more likely to be abstinent from these drugs nine years later than those who continued to smoke.<sup>18</sup>

Most of the evidence supports concurrent treatment for tobacco and other drugs. A meta-analysis of 19 randomised controlled trials found that patients who were treated simultaneously for smoking and other drug problems were 25% more likely to achieve long-term abstinence from alcohol and other drugs than those who did not receive a smoking intervention.<sup>19</sup> Smoking can trigger relapse to alcohol or other drugs.<sup>20</sup> Similarly, relapse to smoking is more likely when drug use is continued. Furthermore, if smoking cessation is delayed, many patients will not return for follow-up, resulting in missed opportunities to provide treatment.<sup>21</sup>

**Management**

Users of alcohol and other drugs should be routinely asked about their smoking status and offered help to quit. Similarly, patients who smoke should be asked about alcohol and other drugs. People who are dependent on alcohol and other drugs and who also smoke can generally

**Table 1. Common smoking myths and responses<sup>6</sup>**

Myth <sup>6</sup>	Response
Smoking is a lower priority than other drugs.	Those who are alcohol or drug dependent and smoke are far more likely to die prematurely from a smoking-related disease than from their primary drug problem.
Smoking relieves stress.	Smoking actually increases stress levels overall. <sup>14</sup> Much of the apparent calming effect of smoking is due to the relief of nicotine withdrawal.
Quitting smoking will undermine recovery from other drugs.	Quitting smoking generally improves drug or alcohol treatment outcomes. <sup>19</sup>
It is best to stop one drug at a time.	Concurrent treatment of nicotine and other drugs is preferred wherever possible and increases success rates overall. <sup>19</sup>
Quitting causes massive weight gain.	The average weight gain is only 2–3 kg over a five-year period, compared with those who smoke. Some quitters gain considerably more weight; however, one in five lose weight or stay the same.
The withdrawal symptoms will be unbearable.	Withdrawal symptoms can usually be controlled with optimal use of stop-smoking medications and behaviour change strategies.

be managed with similar behavioural and pharmacological treatments as others who smoke, but may require more intensive and longer care.<sup>3,4</sup> Management is based on the five As framework outlined in The Royal Australian College of General Practitioners' (RACGP's) *Supporting smoking cessation: A guide for health professionals* (Table 2).<sup>22</sup>

It is important to identify and treat mental illness when it co-exists with a dependence on alcohol and other drugs as this can improve smoking and drug treatment outcomes.<sup>3,4</sup> Explaining to patients that smoking cessation improves mental health and cognitive function, and enhances recovery from alcohol and other drugs, can help to motivate quit attempts. Smoking cessation can also lead to increased blood levels of some psychotropic drugs, particularly clozapine and olanzapine, and dose adjustments may be required soon after quitting.<sup>22</sup>

## Counselling

People who are dependent on alcohol and other drugs and smoke generally need more comprehensive and longer behavioural counselling than others who smoke.<sup>3,4</sup> Many of the strategies for alcohol and drug treatment are also used for smoking cessation, such as providing information, identifying triggers, avoiding high-risk situations, motivational

interviewing, lifestyle changes, and stress management.

It is important to explore the substance user's beliefs about smoking. Identifying their misperceptions and providing corrective information can often trigger an attempt to quit smoking (Table 1). It is especially important to discuss the greater health risks of smoking, compared with other drug use, and explain that quitting multiple drugs simultaneously is generally more effective than sequential treatment.

Smoking behaviour needs to be considered in the broader context of the patient's lifestyle. High-stress

levels are common in this population and stress management techniques should be discussed in all cases. Regular exercise and a healthier diet may also help.<sup>4</sup> Encourage the patient to avoid boredom by developing new interests and keeping busy.

Advise reduced contact with peers who also use drugs and alcohol as this will lessen the risk of relapse to smoking and other drug use. It can be motivating to discuss alternative uses for the money saved by quitting smoking as many people who use alcohol and other drugs struggle financially. For those who are not currently

**Table 2. The five As of smoking cessation for substance users<sup>22</sup>**

Ask	Regularly ask all patients if they smoke and record the information in the medical record.
Advise	Advise all patients who smoke to quit in a clear, personalised way such as 'The best thing you can do for your children and your health is to stop smoking'.
Assess	Assess interest in quitting, level of nicotine dependence, psychiatric comorbidities and other drug use.
Assist	Provide personalised information. Identify smoking triggers and discuss coping skills. Address barriers to quitting such as effect of quitting on other drug use. Make environmental and lifestyle changes. Recommend medication. Advise 'not even a single puff'. Set a quit date.
Arrange	Follow-up visits increase long-term abstinence. Patients who use substances are less likely to attend.

ready to quit, consider motivational interviewing and address anticipated barriers to quitting (Table 1). Where GPs are unable to provide counselling, patients can be referred to:

- Quitline (137 848)
- an accredited tobacco treatment specialist ([www.aascp.org.au](http://www.aascp.org.au))
- a psychologist, with a GP Mental Health Care Plan where appropriate.

### Pharmacotherapy

The same medications for smoking cessation are used in people who use alcohol and other drugs as those who smoke. First-line agents are nicotine replacement therapy (NRT), varenicline and bupropion. Optimal therapy and longer than standard treatment courses are recommended; however, the additional medication costs can be a barrier in this population.<sup>3,4</sup>

Given the higher levels of nicotine dependence, larger than average doses of NRT may be required to relieve cravings and withdrawal symptoms. Combination NRT (nicotine patch plus a quick acting preparation such as the mouth spray or lozenge) is more effective than the patch alone and will usually be required.<sup>23</sup> Varenicline is the most effective single agent for smoking cessation, although there is sparse evidence for its use in smokers with illicit drug problems.<sup>24</sup> The combination of varenicline and nicotine patch may be more effective than varenicline alone.<sup>25</sup>

In smokers with alcohol dependence, combination NRT has been shown to be more effective than a single nicotine product.<sup>26</sup> There is also a growing evidence for varenicline in treating those who drink heavily and smoke, as it significantly reduces alcohol cravings and consumption, as well as helping them to quit smoking.<sup>27</sup> Bupropion is contraindicated in patients who are alcohol-dependent because of the increased risk of seizures. People who smoke and are on buprenorphine or methadone maintenance have very low quit rates. Studies with NRT, bupropion and varenicline have found low medication

adherence and no sustained cessation benefit.<sup>28</sup>

Alternative treatments need to be considered in this more resistant population. Electronic cigarettes may have a role and are commonly used by those who use illicit drugs in Australia.<sup>8</sup> A recent review concluded that electronic cigarettes can help those who smoke to quit and reduce cigarette consumption. The review also concluded that electronic cigarettes were 95% less harmful than smoking tobacco.<sup>29</sup> However, there is still some controversy about their use, and long-term efficacy and safety data are not yet available.

### Case – Alcohol dependence

James, 42 years of age, is a storeman with an alcohol problem. He is divorced and has been drinking heavily for the past 10 years. His alcohol consumption has increased to a bottle of whisky each evening to relax and ‘numb the pain’ since his marriage broke down six months ago. James chain-smokes when drinking and smokes up to 30 cigarettes per day. He says cigarettes are like a friend and provide companionship when he is alone. James has chronic depression, but has not been taking his medication for some time.

You discuss the strong association between alcohol and smoking, and how each drug triggers urges for the other. He is more likely to achieve and maintain long-term sobriety if he quits smoking. Although smoking seems to relax him, it actually increases stress levels and depresses his mood overall. You discuss strategies to reduce stress, such as taking the dog for a walk and deep-breathing exercises, and prescribe antidepressant medications for James.

To occupy his evenings, James decides to start playing the guitar again and read books. He also enrolls at evening college to learn French, where he may also meet people and make friends.

James agrees to start varenicline, which will also help to reduce alcohol craving. You advise him to stop smoking in a couple of weeks and continue the

medication for an extended course of six months. He will also use nicotine mouth spray for quick relief of breakthrough cigarette cravings.

James agrees to try to cut down on his alcohol consumption to two drinks per day on five days per week. He also agrees that if he cannot achieve this and maintain it within six months, he will aim for abstinence.

### Conclusion

Users of alcohol and other drugs are at high risk of harm from smoking, yet their use of tobacco is often neglected. Wherever possible, GPs should integrate smoking cessation treatment into the routine care of patients who are dependent on alcohol and other drugs and also smoke. Many of these patients are willing and able to quit smoking, but may need more intensive and longer treatment. Perceived barriers to quitting are common and should be addressed. Concurrent treatment of smoking and other substances is recommended in most cases and does not increase relapse to alcohol or other drugs.

### Authors

Colin P Mendelsohn MBBS (Hons), Tobacco Treatment Specialist, The Sydney Clinic, Bronte, NSW. [mendel@bigpond.net.au](mailto:mendel@bigpond.net.au)

Alex Wodak AM, FRACP, FACHAM, MBBS, Emeritus Consultant, Alcohol and Drug Service, St Vincent's Hospital, Darlinghurst, NSW

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