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Problem drinking

Management in general practice

Background

Management of problem drinking presents the general practitioner with similar challenges and rewards to those associated with the management of other chronic conditions.

Objective

This article presents a framework for managing alcohol problems in general practice based on national guidelines for the treatment of alcohol problems.

Discussion

General practitioners are well placed to undertake the management of drinking problems following an assessment of the amount of alcohol taken and the risks this poses for the individual and the people around them. This assessment starts the process of engagement and reflection on drinking habits and will inform the appropriate management approach. Brief interventions can result in reduction in drinking in nondependent drinkers. For dependent drinkers, treatment steps include assessing need for withdrawal management and developing a comprehensive management plan, which includes consideration of relapse prevention pharmacotherapy and psychosocial interventions. The patient's right to choose what they drink must be respected, and those who continue to drink in a problematic way can still be assisted, with compassion, within a harm reduction framework.

Keywords: alcohol related disorders/management; general practice



Problem drinking has similar characteristics to many of the chronic conditions routinely managed in the general practice setting. The management of chronic conditions can at times be challenging and time consuming. However, the majority of Australian general practitioners find dealing with chronic conditions more rewarding and satisfactory if they have clear treatment goals.¹

Management of drinking problems presents the GP with similar opportunities for challenging and rewarding practice.^{2,3} The approach described in this article is based on the *Guidelines for the treatment of alcohol problems* published by the Australian Government Department of Health and Ageing (see *Resources*).⁴ An algorithm for the management of problem drinking is shown in *Figure 1*.

The management of drinking problems starts with an assessment of the amount of alcohol taken and the risks this poses for both the individual and the people around them. This assessment of problem drinking is described in the article 'Problem drinking: Detection and assessment in general practice' in this issue.⁵ The degree to which alcohol dependence is present will inform the appropriate management approach. The 'Drink-less Program' is also a useful resource to help GPs in the detection and treatment of risky drinking.⁶ If alcohol dependence is not present, a brief intervention may be successful in helping the patient cut down on their drinking.⁷⁻⁹

Brief intervention

Brief interventions as short as 5 minutes have been shown to reduce drinking in nondependent drinkers in randomised controlled trials.⁷⁻⁹ Key components of a brief intervention are summarised by the acronym FLAGS (*Table 1*):

- giving individualised **F**eedback that is relevant and realistic for them
- **L**istening to the patient's response and readiness to change
- providing clear **A**dvice including on benefits they will get out of change
- helping them identify their **G**oals, and
- to develop practical **S**trategies to work toward.

Several sessions may be needed in some patients. On average, patients reduce their drinking by a few drinks per week from brief

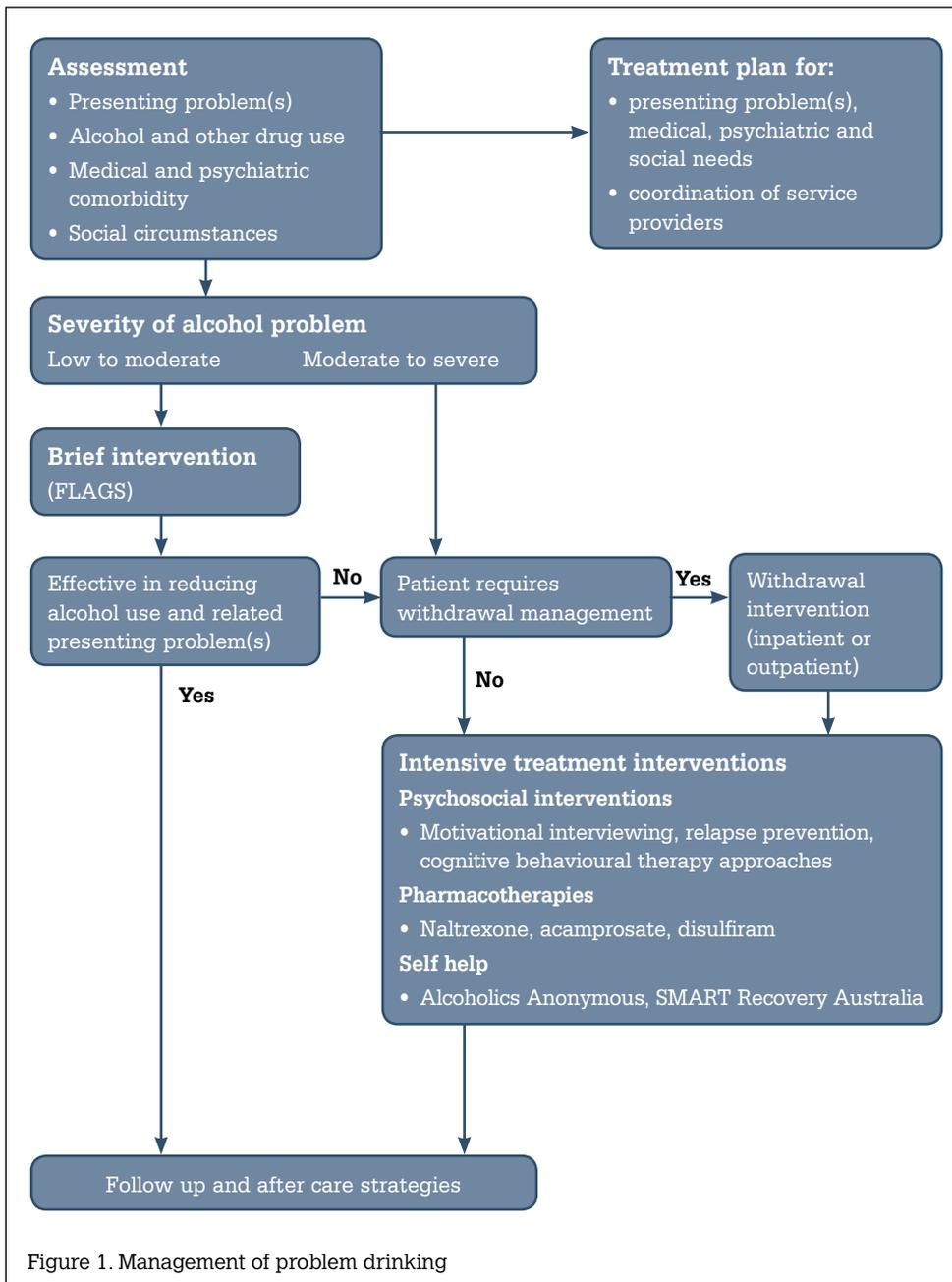


Figure 1. Management of problem drinking

steps for dependent drinkers include predicting and managing alcohol withdrawal, preventing nutritional deficiency, and considering strategies such as medications to help prevent relapse, counselling and group based approaches and residential rehabilitation. Support for family and significant others may be required and follow up is vital.

Importantly, 24 hour specialist advice, information and support is available for clinicians managing withdrawal in patients and any other aspect of problem drinking from the Drug and Alcohol Clinical Advisory Service (DACAS) (see *Resources*). An addiction medicine or addiction psychiatry specialist at a tertiary hospital may also be able to assist.

Predicting and managing alcohol withdrawal

Alcohol withdrawal syndrome is a period of central nervous system hyperactivity, which occurs when an alcohol dependent individual abruptly stops or significantly reduces their drinking. Almost half of dependent drinkers experience clinically relevant withdrawal symptoms upon cessation of alcohol.⁹ *Table 2* describes the most common signs and symptoms of uncomplicated and complicated withdrawal. Management of these symptoms facilitates further engagement and ensures the

intervention, with associated reductions in harm. The topic of drinking can be revisited at some (but not necessarily every) subsequent visit. There is evidence of a cumulative effect of brief interventions,⁹ but this should never become confrontational. Tools such as the Australian Drug Foundation's 'Drinking Diary' may assist GPs to engage patients in reflecting their own drinking (see *Resources*). The focus should be on assisting the patient to identify their own goals and work toward achieving these goals for optimal health and quality of life.

For a dependent drinker, a brief intervention is not usually enough on its own, but it can be important in initiating the conversation around alcohol. In these patients, the goal will usually be abstinence, as loss of control over drinking is a typical feature of withdrawal. Treatment

patient's safety. However, it is only a transitional step toward long term sobriety.⁴

The main predictor of withdrawal severity is the patient's previous experience of withdrawal – individuals with a history of severe alcohol withdrawal syndrome are more likely to have a similar experience in future withdrawal episodes.⁹ Unplanned withdrawal (eg. after an emergency admission to hospital or entry to prison) tends to be more severe than in a planned withdrawal (when management is started promptly). If the patient has never stopped drinking previously, the timing of the first drink of the day may be a good indicator of the likely severity of their withdrawal symptoms. A mild withdrawal overnight might leave the patient feeling tense on waking but they

**Table 1. FLAGS brief intervention structure**

Feedback
<ul style="list-style-type: none"> • Provide individual feedback about the harms already experienced from alcohol or the risks associated with continued drinking, based on the current patterns • Outline potential common harms and risks of early stage problem drinking including physical, mental health and social problems such as:⁶ <ul style="list-style-type: none"> – insomnia; less energy – poor coordination; less ability to think clearly – high blood pressure – depression; stress – impotence – risk of injury; danger in driving and operating machinery
Listen
Listen to the patient's response and put their response in context by providing information on how their drinking levels relate to levels recommended by NHMRC guidelines and that of the population average (see the article 'Problem drinking: Detection and assessment' in this issue)
Advice
Provide clear and nonjudgmental advice of about 5–10 minutes duration on the importance of changing current drinking patterns. This advice can be supported by self help materials, which can inform and motivate the patient further. Examples of the benefits of reducing drinking include ⁶ : <ul style="list-style-type: none"> • Better sleep; more energy • Better physical shape; reduced weight • No hangovers; better memory • Improved mood; fewer family problems • More money • Reduced risk of high blood pressure, liver damage, brain damage, cancer, drink driving, injury to you and others
Goals
Assist the patient to set specific goals for changing their drinking pattern based on safe drinking levels (see the article 'Problem drinking: Detection and assessment' in this issue). The conversation should instil optimism in the patient that these goals can be achieved
Strategies
Ask the patient to choose strategies that may help achieving these goals. Provide some prompters and help, but make sure that it is the patient's own strategy for their own situation. Example of strategies for cutting down alcohol intake include ⁶ : <ul style="list-style-type: none"> • Drink only with food • Have a glass of water between drinks to quench the thirst • Switch to smaller glass sizes • Switch to low alcohol beer • Avoid going to the pub after work • Avoid or limit time spent with friends who drink heavily • If under pressure to drink, say: 'My doctor has told me to cut down' or 'I'm on a fitness drive' • Alternatives: <ul style="list-style-type: none"> – plan other activities or tasks at a time when you usually have a drink – when stressed, take a walk or exercise instead of drinking – explore new interests – spend time with friends who don't drink
Adapted from Guidelines for the treatment of alcohol problems ⁴ and the Drink-less Program ⁶

could wait several hours before their first drink, whereas in severe overnight withdrawal, marked anxiety and tremors may only resolve with an early morning drink.^{10–11} Marked morning symptoms and early drinking to resolve them can be a good predictor of a severe withdrawal syndrome.

Patients who are physically well, and who have had only mild to moderate withdrawal symptoms in the past and with no past history of withdrawal seizures, can typically be managed effectively and safely as an outpatient,¹² with or without diazepam. *Guidelines for the treatment of alcohol problems* provides a practical approach to the use of diazepam and other medications for managing alcohol withdrawal symptoms in different settings and scenarios.⁴

If diazepam is required, the dose will vary, for example from 10 mg at night for 3 days for insomnia in the setting of mild withdrawal, through to 10 mg four times daily for moderate withdrawal. The initial amount of diazepam required is decided on the basis of past history of withdrawal and ongoing dosing on current withdrawal symptoms and signs. Withdrawal rating scales are used to monitor treatment progress, being careful to exclude other conditions, such as pneumonia, that may raise the score (by causing tachycardia, fever and anxiety). Diazepam dose should be monitored carefully and appropriate doses prescribed or 'written up' daily according to need. Diazepam should be gradually but steadily reduced to nil within a week to avoid dependence to benzodiazepines. More severe withdrawals may need to be managed in the hospital setting and may require large amounts of diazepam or, in the case of delirium tremens, a midazolam infusion.

Offering outpatient withdrawal management is often greatly appreciated by patients as there is often a waiting list for inpatient withdrawal beds and many people do not like the idea of 'checking in to a detox' facility. Proper assessment and screening will ensure that outpatient



withdrawal is a safe and feasible process. The presence of a relative or friend at home who can help supervise, or easy access to the GP or skilled nurse for regular reviews, can facilitate a relatively straightforward experience for the patient and the doctor.

Patients who have previously experienced complicated and severe withdrawals^{11–13} (seizures, delirium tremens), who have other significant medical or psychiatric problems,¹³ and who use concomitant licit or illicit substances such as benzodiazepines¹⁴ are more likely to experience further complicated and severe withdrawal symptoms. Their withdrawal is best managed as an inpatient basis. Multiple failed ambulatory withdrawal attempts, being surrounded by heavy drinkers, being unable to initiate abstinence and lacking support people to monitor withdrawals are other important indications for inpatient withdrawal management.

When to give thiamine

All dependent drinkers are prone to thiamine deficiency because of poor diet and damage to the gastric lining, and impaired thiamine utilisation. Current consensus is that thiamine should be given to all dependent drinkers at a dose of at least 300 mg/day.⁴ Parenteral thiamine is preferred if the person is vomiting, or has extremely poor nutrition or severe alcohol dependence. Parenteral thiamine in doses of at least 500 mg/day for 3–5 days should be considered for all heavy drinkers who present with memory impairment, hypothermia, hypotension or delirium tremens.⁴ Importantly, the typical triad of Wernicke syndrome (confusion, ataxia, eye signs) is rarely seen, and milder and subclinical cases can result in permanent impairment of memory if left untreated. Thiamine should be given before any carbohydrate load such as intravenous dextrose. In addition to thiamine, an oral multivitamin preparation may be helpful as deficiencies of other B complex vitamins along with vitamin C, zinc and magnesium are common in poorly nourished heavy drinkers.⁹

Medications to help prevent relapse

Relapse prevention pharmacotherapy should be offered to all dependent patients following withdrawal management. Currently there are three medications approved for the treatment of alcohol

dependence: naltrexone, acamprosate and disulfiram (*Table 3*). All can be prescribed by GPs.

Naltrexone, an orally active opiate antagonist, reduces the rate of relapse to heavy drinking by reducing the reward associated with drinking alcohol and by reducing craving.^{15–16}

Acamprosate reduces cravings by helping reverse the overstimulated state resulting from neuroadaptation to alcohol. It achieves this by modulating brain gamma-aminobutyric acid (GABA) and glutamate.^{17,18}

Disulfiram is the oldest among these medications. Disulfiram acts as a deterrent to drinking because the patient expects to experience a severe negative reaction if they drink even a small amount of alcohol.¹⁹ This is because disulfiram interferes with the breakdown of alcohol, and the resulting build up of acetaldehyde produces severe headache, palpitations and vomiting. It is best suited to patients who have someone to help supervise them taking the medication and who are relatively healthy.^{20–21}

Naltrexone and acamprosate are subsidised by the Pharmaceutical Benefits Scheme (PBS) when part of a comprehensive treatment program. This can mean that the patient has been offered counselling and measures such as Alcoholics Anonymous (AA), and that the GP will monitor progress. Disulfiram is not currently subsidised by the PBS, which makes it more expensive for patients, but it can be very effective in a well informed and motivated patient.

Other agents with the potential to help reduce alcohol intake and/or cravings for alcohol are currently being studied. Among them are baclofen, and topiramate. Baclofen, a GABA-B receptor agonist, has shown to be a promising agent for controlling alcohol withdrawal symptoms as well as reducing alcohol cravings.²² It can be safely used in cirrhosis.²² Topiramate, a relatively new anticonvulsant, has been studied for managing alcohol dependence with a degree of success.⁹

Counselling and group based approaches

Psychosocial interventions such as motivational interviewing and cognitive behavioural therapies are important and effective elements in the management of alcohol dependence.^{23–25} Similarly,

Table 2. Signs and symptoms of alcohol withdrawal

Withdrawal experience	Symptoms and signs of autonomic hyperactivity	Gastrointestinal symptoms and signs	Cognitive and perceptual symptoms and signs
Uncomplicated withdrawal	Sweating, tachycardia, hypertension, tremor, fever (generally lower than 38°C)	Anorexia, nausea, vomiting, dyspepsia	Poor concentration, anxiety, psychomotor agitation, disturbed sleep
Complicated withdrawal	Dehydration and electrolyte imbalances	As above	Seizures, hallucinations or perceptual disturbances (visual, tactile, auditory), delirium

Source: Guidelines for the treatment of alcohol problems⁴

**Table 3. Choice of pharmacotherapies for alcohol dependence**

	Acamprosate	Naltrexone	Disulfiram
Once daily dosing	No	Yes	Yes
Reduces cravings	Yes	Yes	No
Stops 'slips' becoming relapses	May	Yes	Yes
Assists in anxiety/insomnia	Yes	No	No
Use in cirrhosis	Yes (except Childs C)*	No	No
Use in renal failure**	No	Precaution	No
Use in heart disease	Yes	Yes	No

* Childs C refers to advanced decompensated cirrhosis ** If creatinine >120 µmol/L seek advice from a renal physician

mutual help-groups such as AA and cognitive behaviour therapy based groups such as 'SMART Recovery' may help improve outcomes (see *Resources*). Psychosocial interventions may not be acceptable to every patient but should be offered to all. 'Directline' and Alcohol & Drug Information Service (ADIS) have a 24 hour telephone line for information and support for patients including information about locally based counsellors and other services (see *Resources*).

Residential rehabilitation

Patients with refractory drinking problems, or who have tried and/or are not suited to home based postwithdrawal care can be referred to a residential rehabilitation unit. These units offer intensive programs to stabilise patients and to build resilience to prevent relapse. Programs can last from weeks to months. The Drug and Alcohol Clinical Advisory Service, ADIS and Directline can provide information about local residential rehabilitation facilities (see *Resources*).

Follow up

Long term follow up is an important part of a comprehensive approach to manage alcohol dependence and provides opportunities to optimise physical and mental health and improve social functioning.

Support for family and significant others

Often there will be calls for help from distressed family members and GPs are well placed to provide this support. In addition to GP support, families and significant others may be able to get help from a psychologist, AI-Anon (a mutual support group for families of alcoholics), or from other family focused services such as Family Drug Support (see *Resources*).

What to do if the patient keeps drinking

There will always be patients who will continue to drink – some because they cannot stop and some because they do not want to. A compassionate, harm reduction approach is appropriate. Periodically, patient encounters can be used as an opportunity to reiterate the

harm associated with drinking, and perhaps more importantly the benefits of change. In addition, GPs can encourage patients to take thiamine to reduce the risk of memory loss, and manage complications of drinking.

If a patient continues to drink, it is important to carefully consider their safety, and the safety of those around them, in relation to driving and child safety as well as safety in the workplace for occupations such as professional driving or mining. In some cases, the GP's professional obligations to preserve public safety and child welfare can exceed the requirement for patient confidentiality. If there is a need to consider reporting the patient to child welfare, workplace authorities or road and traffic authorities, this should be conveyed to the patient if possible, as some patients will accept the need to reduce their drinking or accept referral for treatment when faced with unpleasant alternatives. Specialist advice from senior colleagues, medical defence organisations or an addiction specialist should be sought in these situations.

Resources

- Australian Government Department of Health and Ageing. Guidelines for the treatment of alcohol problems: www.health.gov.au/internet/alcohol/publishing.nsf/Content/treat-guide
- Drink-less Program: www.sswahs.nsw.gov.au/sswahs/Drinkless
- The Australian Drug Foundation's Drinking Diary: <http://bookshop.adf.org.au/store>
- Drug and Alcohol Clinical Advisory Service (DACAS) provides 24 hour advice for healthcare professionals:
 - ACT and NSW 1800 023 687
 - SA 08 8363 8633
 - NT 1800 111 092
 - QLD 07 3636 7098
 - VIC 1800 812 804
 - TAS 1800 630 093
 - WA 08 9442 5042; 1800 688 847 (WA country)
- Directline and Alcohol & Drug Information Service (ADIS) provide 24 hour information and support for patients:
 - ACT 02 6205 4545
 - NSW 1800 422 599 (NSW country); 02 9361 8000 (Sydney)
 - SA 1300 131 340
 - VIC 1800 888 236
 - NT 08 8948 0087 (Darwin); 08 8951 7580 (Central Australia); 1800 131 350 (Territory wide)



- QLD 07 3837 5989 (Brisbane); 1800 177 833 (QLD country)
- TAS 1800 811 994
- WA 08 9442 5000 (Perth); 1800 198 024 (WA country)

- Alcoholics Anonymous Australia: www.aa.org.au
- SMART Recovery Australia: www.smartrecoveryaustralia.com.au
- Al-Anon Family Groups Australia: www.al-anon.alateen.org/australia
- Family Drug Support: 24 hour support line 1300 368 186; www.fds.org.au.

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Conflict of interest: none declared.

References

1. Olroyd J, Proudfoot J, Infante FA, et al. Providing healthcare for people with chronic illness: the views of Australian GPs. *Med J Aust* 2003;179:30–3.
2. Weller DP, Litt JC, Polls RG, et al. Drug and alcohol problems in primary care-what do GPs think? *Med J Aust* 1992;156:43–8.
3. Ampt AJ, Amoroso C, Harris MF, et al. Attitudes, norms and controls influencing lifestyle risk factor management in general practice. *BMC Fam Pract* 2009;10:59.
4. Haber P, Lintzeris N, Proude E, Lapotko O. 2009. Guidelines for the treatment of alcohol problems. The Australian Government Department of Health and Aging. Canberra. Accessible at www.health.gov.au/internet/alcohol/publishing.nsf/Content/treat-guide.
5. Demirkol A, Haber P, Conigrave K. Problem drinking: detection and assessment in general practice. *Aust Fam Physician* 2011;40:570–4.
6. University of Sydney. Drink-less Program. Available at www.sswahs.nsw.gov.au/sswahs/Drinkless [Accessed 15 March 2011].
7. Kaner EF, Dickinson HO, Beyer FR, et al. Effectiveness of brief alcohol interventions in primary care populations. *Cochrane Database Syst Rev* 2007; Issue 2. Art. No.: CD004148. DOI: 10.1002/14651858.CD004148.pub3.
8. Latt N, Conigrave K, Saunders J, Marshall EJ, Nutt D. *Addiction Medicine*. Oxford University Press, 2009.
9. Proude E, Lapotko O, Lintzeris N, Haber P. The treatment of alcohol problems: a review of the evidence. Canberra: The Australian Government Department of Health and Aging, 2009.
10. Benzer DG. Quantification of the alcohol withdrawal syndrome in 487 alcoholic patients. *J Subst Abuse Treat* 1990;7:117–23.
11. Essardas Daryanani H, Santolaria FJ, Reimers EG, et al. Alcoholic withdrawal syndrome and seizures. *Alcohol Alcohol* 1994;29:323–8.
12. Hayashida, M, Alterman AI, McLellan AT, et al. Comparative effectiveness and costs of inpatient and outpatient detoxification of patients with mild-to-moderate alcohol withdrawal syndrome. *N Engl J Med* 1989;320:358–65.
13. Saitz R. Introduction to alcohol withdrawal. *Alcohol Health Res World* 1998;22:5–12.
14. Wetterling T, Kanitz RD, Veltrup C, et al. Clinical predictors of alcohol withdrawal delirium. *Alcohol Clin Exp Res* 1994;18:1100–2.
15. Rösner S, Hackl-Herrwerth A, Leucht S, et al. Opioid antagonists for alcohol dependence. *Cochrane Database Syst Rev* 2010; Issue 12. Art. No.: CD001867. DOI: 10.1002/14651858.CD001867.pub3.
16. Rosner, S, Leucht S, Leher P, et al. Acamprosate supports abstinence, naltrexone prevents excessive drinking: evidence from a meta-analysis with unreported outcomes. *J Psychopharmacol* 2008;22:11–23.
17. Mann K, Kiefer F, Spanagel R, et al. Acamprosate: recent findings and future research directions. *Alcohol Clin Exp Res* 2008;32:1105–10.
18. Rösner S, Hackl-Herrwerth A, Leucht S, et al. Acamprosate for alcohol dependence. *Cochrane Database Syst Rev* 2010; Issue 9. Art. No.: CD004332. DOI: 10.1002/14651858.CD004332.pub2.
19. Heather N. Disulfiram treatment for alcoholism. *BMJ* 1989;299:471–2.
20. Chick J, Gough K, Falkowski W, et al. Disulfiram treatment of alcoholism. *Br J Psychiatry* 1992;161:84–9.
21. Hughes J, Cook C. The efficacy of disulfiram: a review of outcome studies. *Addiction* 1997;92:381–95.
22. Addolorato G, Leggio L, Ferrulli A, et al. Effectiveness and safety of baclofen for maintenance of alcohol abstinence in alcohol-dependent patients with liver cirrhosis: randomised, double-blind controlled study. *Lancet* 2007;370:1915–22.
23. Miller W, Rollnick S. *Motivational interviewing: preparing people for change*. New York: Guilford Press, 2002.
24. Miller WR, Wilbourne PL. Mesa Grande: a methodological analysis of clinical trials of treatments for alcohol use disorders. *Addiction* 2002;97:265–77.
25. Carroll KM, Onken LS. Behavioural therapies for drug abuse. *Am J Psychiatry* 2005;162:1452–60.

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