

Management of alcohol use disorders in primary care

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Alcohol use disorders are increasing in prevalence and the GP is ideally placed to identify and refer patients. Dr Smith and Dr Woolston discuss how to screen for alcohol use disorders in primary care and the treatment options available, with particular emphasis on management of the alcohol dependent patient.

A definite diagnosis of alcohol dependence should usually be made only if three or more of the following have been present together at some time during the previous year:

- Compulsion to use alcohol
- Loss of control over alcohol
- Physiological withdrawal on ceasing to drink
- Tolerance: increasing doses of alcohol required to achieve the same effect with potential for very high levels of blood alcohol to be maintained by topping up
- Persistence of drinking behaviour despite awareness of definite harm
- Saliency of drinking behaviour with neglect of other priorities to obtain or recover from alcohol
- Repertoire narrows such that a stereotypic pattern of drinking emerges

Table 1. ICD-10 criteria for alcohol dependence²

It might be said today, to paraphrase Sir William Osler's dictum, that "she who knows alcohol, knows medicine". This is certainly the case currently in the UK given the myriad of clinical presentations produced by alcohol. Doctors, as a result, are at the forefront of campaigns to reduce the flow from the brewers' taps of the socially approved drug and toxin that is ethyl alcohol.

Without pushing the Osler analogy too far, alcohol, like syphilis, can be the hidden agent in many disease processes with perhaps only the kidneys and lungs spared from direct alcohol-induced disease. However, unlike contact with the spirochete, patients will have knowledge of their contact with alcohol and, depending on how the questions are asked, are more likely than not to give honest answers concerning their consumption of alcohol. However, they may not be able to gauge what are hazardous and harmful levels of intake, whether they are becoming dependent or to make the connection to their presenting problem. Thus it is essential that every healthcare professional has knowledge in this area and is capable of applying this in practice for the benefit of the patient.

Recognising alcohol use disorders

A variable proportion of patients seen in primary care will be alcohol dependent or will be drinking hazardously or harmfully. The exact numbers will vary depending on the demographics of the population served. Severe alcohol dependence is most prevalent in our poorest areas and three to four times as common in men as in women. Whatever the local prevalence, there is good evidence that screening and brief interventions are beneficial in general practice.

Harmful drinking is defined as a pattern of alcohol use that leads to health problems, whether these are psychological issues, physical illness or accidents. *Hazardous drinking* is defined as a pattern of alcohol use that puts someone at risk of these problems. *Alcohol dependence* is characterised by craving, tolerance, persistence and physical withdrawal symptoms.¹ ICD-10 criteria (see Table 1)² define dependence as either present or absent; however, in reality it exists in a continuum of severity. Assessing the severity of alcohol misuse and dependence can inform care by indicating appropriate interventions.

This distinction between the alcohol use disorders – hazardous/harmful drinking *versus* dependent drinking – helps to guide appropriate treatment. Moderate to severe alcohol dependence will require medication to assist withdrawal.

The four drugs licensed for alcohol use disorders – disulfiram, acamprosate, naltrexone and nalmefene – are only indicated in alcohol dependence and only as adjunctive treatment along with psychosocial interventions for either relapse prevention or in the case of nalmefene for reduction of consumption levels.

Screening for alcohol use disorders

Who to screen in general practice

Screening can be targeted at those presenting with the most common symptoms that could be alcohol related, namely hypertension, abnormal liver function tests, indigestion, sleep disorders, tiredness, low mood and cardiovascular disease. It can also be included in a chronic disease review, especially with diabetes and chronic mental disorders, and to screen newly registered patients.

How to screen

Screening tools Using an established screening tool is a good place to start. The Alcohol Use Disorders Identification Test (AUDIT; see Figure 1) is the preferred choice for screening in a primary care setting and takes about 10 minutes to self-complete (see www.alcohollearningcentre.org.uk). The shorter AUDIT-C can be used in more time-pressured situations. Also useful are the self-administered Severity of Alcohol Dependence Questionnaire (SADQ), Clinical Institute Withdrawal Assessment of Alcohol Scale, revised (CIWA-Ar; self-report with objective signs to assess withdrawal symptoms), and Alcohol Problems Questionnaire (APQ; nature and extent of problems) as appropriate. When assessing the severity of dependence and the need for assisted withdrawal, take into consideration the age and sex of your patient and the presence of liver disease. AUDIT can detect alcohol problems experienced in the last year. A score of 8+ on the AUDIT generally indicates harmful or hazardous drinking.

Quantify intake Additionally it is good practice to quantify the patient's daily

Please circle the answer that is correct for you.

1. How often do you have a drink containing alcohol?
Never *Monthly or less* *Two to four times a month* *Two to three times per week* *Four or more times a week*
2. How many drinks containing alcohol do you have on a typical day when you are drinking?
1 or 2 *3 or 4* *5 or 6* *7 to 9* *10 or more*
3. How often do you have six or more drinks on one occasion?
Never *Less than monthly* *Monthly* *Two to three times per week* *Four or more times a week*
4. How often during the last year have you found that you were not able to stop drinking once you had started?
Never *Less than monthly* *Monthly* *Two to three times per week* *Four or more times a week*
5. How often during the last year have you failed to do what was normally expected from you because of drinking?
Never *Less than monthly* *Monthly* *Two to three times per week* *Four or more times a week*
6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?
Never *Less than monthly* *Monthly* *Two to three times per week* *Four or more times a week*
7. How often during the last year have you had a feeling of guilt or remorse after drinking?
Never *Less than monthly* *Monthly* *Two to three times per week* *Four or more times a week*
8. How often during the last year have you been unable to remember what happened the night before because you had been drinking?
Never *Less than monthly* *Monthly* *Two to three times per week* *Four or more times a week*
9. Have you or someone else been injured as a result of your drinking?
No *Yes, but not in the last year* *Yes, during the last year*
10. Has a relative or friend, or doctor or other health worker, been concerned about your drinking or suggested you cut down?
No *Yes, but not in the last year* *Yes, during the last year*

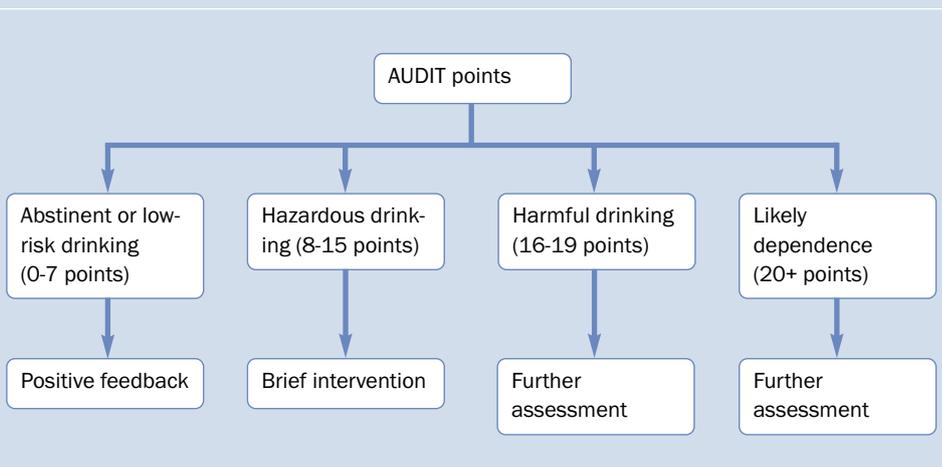


Figure 1. Alcohol Use Disorders Identification Test (AUDIT). Questions 1–8 = 0, 1, 2, 3, or 4 points. Questions 9 and 10 are scored 0, 2 or 4 only. All from left to right. Maximum score is 40 (adapted from Grimm, 2015³)

and/or weekly alcohol intake and where possible standardise this to units of alcohol. Confusingly, a unit of alcohol is defined differently internationally. A UK unit is 8 grammes of ethanol and the number of units in a quantity of drink can be calculated by a simple formula. The equation is:
 $alcohol\ by\ volume\ (ABV) \times volume\ in\ litres = number\ of\ UK\ units\ consumed.$

Thus a severely alcohol dependent man drinking nine litres of white cider at 6% ABV in a day will have consumed 54 UK units that day. Someone consuming two 250ml glasses of 13% ABV wine every evening is consuming 6.5 UK units per day.

The weekly safe limits for men and women are 21 units and 14 units respectively. Men should ideally drink no more than three to four units and women two to three units on any one occasion. It is best to have at least two alcohol-free days per week. A substantial number of people today drink above these safe limits with proportionately increased risk of many diseases as alcohol consumption increases.⁴

A good technique is to ask a patient to recall what they drank yesterday, then the day before and so on, back for seven days. This so-called timeline followback (TLFB) technique produces reasonable results and is often used in research. Even when patients are unsure of the strength of their cider, lager, vodka, etc. reasonable approximations can be made on the likely units consumed based on average strengths of each beverage.

Blood tests can be a useful adjunct in confirming suspicions of underlying alcohol dependence in individuals who you suspect are minimising or denying their level of alcohol consumption. However, the traditional alcohol biomarkers of gamma-glutamyl transferase (GGT), mean corpuscular volume (MCV), aspartate aminotransferase (AST) and alanine aminotransferase (ALT) (with AST>ALT) can be normal in half of severely dependent drinkers. Serum carbohydrate deficient transferrin (CDT) is a more sensitive and specific indirect biomarker of heavy drinking but it is not routinely available to GPs. A high blood ethanol level, by breathalyser or blood test, in a patient with no signs of intoxication is highly indicative of the dependence syndrome.

Stages of change assessment

Another useful approach when assessing someone who is drinking in a hazardous, harmful or dependent way is to identify their readiness to change using the “stages of change” model (see Figure 2).⁵ This will allow advice and further management to be provided at an appropriate point. There is little point in completing detailed screening tools or carrying out a lengthy assessment if someone is unwilling to admit there may be a problem (precontemplation). Providing basic information and inviting them to return if they want to discuss their alcohol use in the future is likely to be more effective.

The stages of change model helps to guide on the use of motivational inter-

viewing during assessment and when providing alcohol brief interventions. This involves always adopting a nonjudgemental and empathetic stance rather than a confrontational one. The focus is on helping the patient recognise their problems and resolve ambivalence about making a change. The model developed with smokers is generally applicable to health behaviours.

Alcohol brief interventions are mainly applicable to hazardous and harmful drinkers and are not covered here due to space restrictions. Further reading is provided at the end of the article, in particular the chapter by Grimm in the recently published 5th edition of the *ABC of Alcohol*³ is a recommended starting point, coupled with the article by Day *et al.*⁶

Treatment, management and referral options for alcohol dependence

Detoxification

We will now give a broad sweep account of the principles of managing alcohol dependence from the viewpoint of general practice. Once it is established that a patient has moderate or severe dependence (30+ on SADQ), and if they are actively drinking and at least contemplating change, then referral to the local alcohol or addiction service is merited.

There is a wide variation in the composition of services around the UK and we know there is much in the way of unmet need. The ideal service will have options to support home detoxification where this is safe for the patient, step-up options through a clinic or day service and access to inpatient beds if it is comprehensive in nature.

It is established in all of the guidelines that unsupervised alcohol detoxification is to be avoided. There are obvious dangers in prescribing a benzodiazepine, usually chlordiazepoxide for the symptomatic relief of alcohol withdrawal, to someone who might continue to drink, as mixing the two drugs together will result in synergistic sedation.

A community detoxification service will ideally have a breathalyser, have helped fully assess the patient to establish the appropriate setting for detoxification and be willing to guide on the

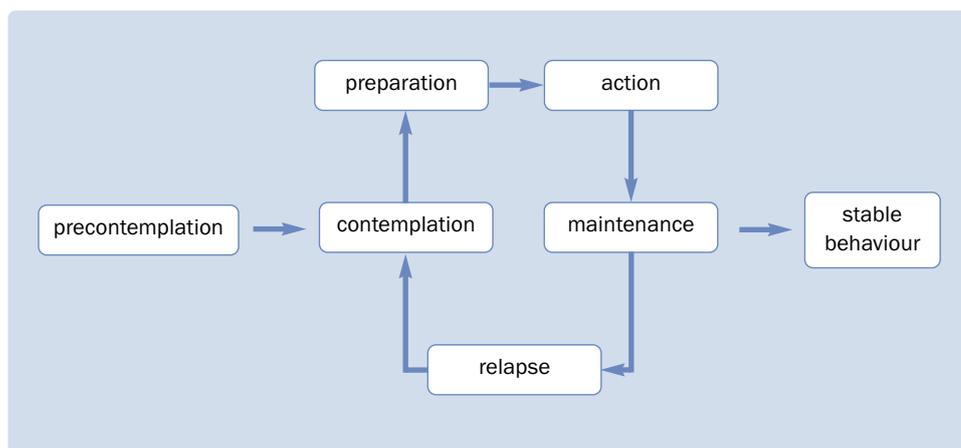


Figure 2. Stages of change model to assess patients' readiness for change (adapted from Prochaska and Velicer, 1997⁵)

dose of chlordiazepoxide and adjust the dose according to response. A fixed-dose regimen reducing over seven days is best when the GP is asked to prescribe in this way. Likely doses are in the range of 10-20mg chlordiazepoxide three to four times daily. Standard practice is to give thiamine (100mg three times daily) and a vitamin and mineral supplement, eg Forceval one capsule daily, alongside the detoxification and maintain this for at least a month beyond abstinence. If the patient is ultimately unable to sustain abstinence, then maintenance on thiamine and vitamin supplementation is justified given the malnutrition that is found in dependent drinkers and the possibility that such therapy is a harm reduction measure against both central and peripheral nervous system damage.

If the patient is a driver, they should be informed of the DVLA regulations, told not to drive and reminded of their obligation to inform the DVLA of their condition. Rarely, it might be necessary to write to the DVLA having informed the patient you are doing this if the advice is ignored, in accordance with the detailed GMC guidance.⁷

Additionally, if you have established a diagnosis of dependence and the patient is a parent, remember to consider if there are any child protection concerns and act accordingly.

Beyond detoxification

Detoxification is only the start of a treatment journey. Local services should help provide support for abstinence through both psychological and social therapies and also through signposting to organisations such as *Alcoholics Anonymous*.

Relapse is common but can be seen as an opportunity to learn for the motivated patient. There are a number of psychotherapeutic approaches with good evidence bases that might be on offer.⁸ In areas of high prevalence, group therapy may be utilised by specialist services in order to deal with the numbers of patients in an equitable and efficient way (alcohol use disorders are the most common psychiatric disorder in terms of lifetime prevalence).

Some patients with severe dependence may need to be in the treatment sys-

tem, off and on, for around five years on average before sustained recovery is seen. The lesson is to persevere in offering help.

The three drugs licensed for helping maintain abstinence post-detoxification are disulfiram, acamprosate and naltrexone:

Disulfiram The oldest of the drugs. It works by blocking the enzyme acetaldehyde dehydrogenase in the liver. Once adequate drug levels are established, after a few days, any use of alcohol is likely to result in an extreme adverse reaction, known as the disulfiram-alcohol reaction. This is because of inhibition of the breakdown of acetaldehyde. The mode of action of the drug is arguably cognitive, with the patient knowing that the choice to drink with impunity has been removed.

The usual dosage is 200mg daily. The evidence base for disulfiram is not as strong as for acamprosate and naltrexone but it is often preferred by specialist services as an immediate way to ensure abstinence while other therapy is applied. All the evidence for the drug points to the need for it to be dispensed with the supervision of a nurse or pharmacist to ensure compliance.⁹

Not all patients are medically or psychiatrically fit for treatment with disulfiram and it is a specialist decision to advise the use of this drug after appropriate work up and screening. Usually it is used for three to six months but sometimes longer with appropriate monitoring for side-effects. Rarely it can be hepatotoxic and is also rarely associated with a severe peripheral neuropathy.

Acamprosate This has been licensed in the UK for around 20 years. It is a homotaurine analogue and is active at both GABA and glutamate receptors but without producing sedation or tolerance. The exact mechanism of action is not fully understood but if initiated soon after detoxification it appears to double the chances of abstinence to one year. This is a definite but modest effect from the extensive research.¹⁰

It is widely described as an anticraving drug but seems to work even in groups without obvious craving for alcohol. Dose depends on body weight: in

those over 60kg it is two 333mg tablets three times daily and under 60kg it is four tablets divided into three daily doses with meals. If it succeeds it should be prescribed for a year. If patient relapses in a sustained way after a six-week trial, it should be stopped. Side-effects are minimal, with gastrointestinal upset though frequent, usually mild and not limiting to treatment. It is not licensed for those over the age of 65 years.

Naltrexone The opioid-receptor antagonist naltrexone has only in the past few years gained a UK license for alcohol dependence but has been available as an approved treatment for alcohol dependence in the USA for much longer. It is effective, but again to a modest level, for relapse prevention in alcohol dependence at a dosage of 50mg daily.^{11,12} Supervision adds to the drug's efficacy. It has a number of side-effects and if analgesia were to become necessary using opiates, two days washout would be required.

All three of these drugs are either specialist initiated or advised. All three are adjunctive therapies. If as a GP you are being asked to prescribe, you should have a clear indication as to monitoring arrangements and the psychosocial treatment package on offer.

Nalmefene The fourth drug licensed in alcohol dependence is nalmefene, a sister drug to naltrexone. This is a very recent addition and has still to find a definite place in existing treatment systems. It is unique in having an indication for reduction of alcohol consumption in those with mild-to-moderate alcohol dependence *not at risk of withdrawal*. Again the effects seem definite but modest from the research¹³ and again it is not to be used in isolation but alongside psychosocial intervention. Whether in the future this becomes a drug routinely used in general practice where alcohol brief interventions have failed remains to be seen but it does have endorsement from NICE¹⁴ and the Scottish Medicines Consortium.¹⁵ It appears to work, as does naltrexone if tested, by dampening the reinforcing properties of alcohol.¹⁶

All prescribing in the area of alcohol dependence has to be done with an awareness of the high levels of co-morbid

illness. It is particularly important to consider whether there is established liver disease, and whether there is co-morbidity with depression (self-harm risk) and use of other psychoactive drugs. Certain psychotropics, eg dosulepin, are best avoided in the depressed alcohol dependent patient, considering the potential risk of self-harm and adverse interactions of these drugs with alcohol. Further reading on this can be found in the British Association for Psychopharmacology (BAP) guideline and in the Maudsley Prescribing Guidelines (see below).

Conclusion

The GP is ideally placed to screen for and respond to alcohol use disorders and to refer appropriately to local services, which are likely to wish to work collaboratively with the GP for the good of the patient. There is definite underinvestment in alcohol treatment services and at this time of high prevalence of alcohol use disorders, there is much to be gained by further development of these services.

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Further reading

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Declaration of interests

Dr Smith received two separate honoraria from Lundbeck Ltd in 2013 for chairing and lecturing at sponsored educational meetings.

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