



GUIDELINES FOR
**THE TREATMENT OF
ALCOHOL PROBLEMS**



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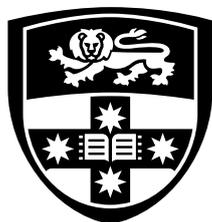
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The Steering Committee was formed at the beginning of the Guideline Development process and was made up of researchers, end-users, and representatives from interested societies (e.g., RACGP). The committee is also made up of representatives from different Australian jurisdictions. The aim of the committee is to: provide direction and scope for the guidelines, recommend members of the working group, and to offer ongoing feedback throughout the project. The Steering Committee met regularly during the Guideline development process via tele-conference. The Steering Committee also attended the dedicated Symposium for the Guidelines held at the University of Sydney, where they offered feedback on the preliminary recommendations from the Guidelines.

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The Working Group was selected by the Steering Committee. To select Working Group members, the Steering Committee first finalised the scope of the Guidelines and the Guideline chapters. The Steering Committee then nominated the Australian leaders in each field. Like the Steering Committee, the Working Group is made up of a mixture of both researchers and clinicians.

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Finally, our thanks also go to the Australian Government, who funded this project under the Drug and Alcohol Program.

CHAPTER 1

AN INTRODUCTION TO THE GUIDELINES FOR THE TREATMENT OF ALCOHOL PROBLEMS

Authors | Paul Haber & Benjamin Riordan

The Guidelines for the Treatment of Alcohol Problems have been periodically developed over the past 25 years. In 1993, the first version of these guidelines, titled: '*An outline for the management of alcohol problems: Quality assurance in the treatment of drug dependence project*' was published (Mattick & Jarvis 1993). The Australian Government commissioned an update a decade later (Shand et al. 2003) and a further edition in 2009 to integrate the Guidelines with the Australian Guidelines to Reduce Health Risks from Drinking Alcohol (National Health and Medical Research Council, NHMRC 2009; Haber et al., 2009). The present version of the Guidelines was also commissioned by the Commonwealth of Australia to remain current and integrated with the updated NHMRC consumption guidelines (2020). In order to ensure that guidelines remain relevant, the next set of guidelines should be updated in 2025, consistent with NHMRC recommendation that guidelines be updated every five years.

AN INTRODUCTION TO THE GUIDELINES FOR THE TREATMENT OF ALCOHOL PROBLEMS

PURPOSE OF THE GUIDELINES

These guidelines provide up-to-date, evidence-based information to clinicians on available treatments for people with alcohol problems and are largely directed towards individual clinicians in practice, such as primary care physicians (general practitioners, nursing staff), specialist medical practitioners, psychologists and other counsellors, and other health professionals. Some chapters highlight service or system level issues that impact on clinicians and their patients. These include recommendations concerning Aboriginal and Torres Strait Islander peoples, culturally and linguistically diverse groups, stigma, and discrimination. Elsewhere, organisation capacity is implied, such as medical resources for withdrawal management where recommendations indicate use of medications. As all forms of treatment will not be readily available or suitable for all populations or settings, these guidelines may require interpretation and adaptation.

These guidelines **do not** attempt to provide information about overall systems of treatment delivery, which is a policy decision that relates to the needs, resources and structure of health care within jurisdictions, however, some comments are made about planning of services for alcohol problems. At the outset, the authors recognise that many people with alcohol problems change their behaviour without formal help or intervention. The way people identify a drinking problem, recognise their responsibility to change, and achieve the self-efficacy to do so, remains variable and incompletely understood. However, at best, professional treatment can only contribute to a person's self-awareness.

OVERVIEWS OF THE GUIDELINES

This document is to be read in parallel with the updated Review of the Evidence, which provides more detail concerning the evidence base, including references, for the recommendations within these guidelines.

FOR EASE OF USE, THE GUIDELINES ARE PRESENTED IN THREE SEPARATE SECTIONS

SECTION 1

overviews the context of alcohol use in Australia including prevalence, screening, and assessment, and new chapters on models of care and stigma associated with alcohol use treatment.

SECTION 2

overviews interventions and treatments for alcohol use, including brief in-person interventions, withdrawal management, psychosocial interventions, pharmacotherapies, support groups and programs, and a new chapter on e-health interventions.

SECTION 3

overviews treatment for specific populations, including adolescents and young people, pregnant and breastfeeding women, Aboriginal and Torres Strait Islander peoples, people from other cultures, older people, cognitively impaired patients, those with comorbidities (polydrug, mental health, physical), sexuality diverse individuals, and gender-specific issues.

One of the challenges of preparing a review such as this is the selection of treatment categories. Since it is not always possible to divide treatments into discrete categories, readers may find that there is some overlap between treatment categories. For example, motivational interviewing is a key component in Brief Interventions ([Chapter 6](#)) and Psychosocial Interventions ([Chapter 9](#)) and features in both chapters albeit tailored to each context. When overlaps occur, we have cross-referenced other chapters.

To help prioritise the content of these guidelines, a needs analysis was conducted with a range of health professionals (general practitioners, hospital-based workers, alcohol and drug workers and community counsellors). An overview of this procedure and results are described in the appendix of the Review of the Evidence. Points arising from this process led to a greater focus on stigma, cognitive impairment, and a reduced focus on epidemiology. Additional resources were also created, such as a dedicated website for the Guidelines. There are a number of additional

changes that have been made to the Guidelines in order to adhere to the most recent standards for guideline development (NHMRC, 2019 see [Appendix I](#) of the Evidence Review for more information).

DEVELOPMENT OF THE GUIDELINES

The Guidelines were developed by:

- Consulting with an expert panel (steering committee);
- Updating the Review of the Evidence for treatment of alcohol problems and publishing these as a companion document;
- Seeking feedback from clinicians concerning the previous edition (see appendix of the evidence review for comprehensive overview);
- Consumer engagement (see appendix of the evidence review for comprehensive overview);
- Peer review by clinicians and researchers;
- Review of all recommendations by the steering committee;
- Public consultation process

In developing the Guidelines, the chapter authors relied on evidence from well-designed meta-analyses and randomised controlled trials wherever possible. Where this evidence was not available, recommendations are based upon the best available research or clinical experience. In almost all cases, the relevant evidence is cited in the accompanying Review of the Evidence and removed from the Guidelines themselves. In turn, the Review of the Evidence has been structured to match the Guidelines, to clarify the evidence that was considered for each recommendation (to the extent that this could be achieved). The breadth of the health impacts of alcohol, affected population groups and treatment approaches precluded systematic literature reviews being undertaken for each clinical recommendation, as required by the NHMRC Guidelines development process.

Each chapter begins with an overview of the topic and is guided by clinical questions to inform recommendations for practice. The recommendations within each chapter identify key issues for clinical practice and have an identified supporting 'grade of recommendation'; they are consolidated at the beginning of the Guidelines. Consistent with contemporary approaches to guideline development (NHMRC, 2009), strength of recommendations is presented as A, B, C, D or GPP (see Table 1.1).

TABLE 1.1 Definition of NHMRC (2009) grades of evidence.

GRADE OF RECOMMENDATION	DESCRIPTION
A	Body of evidence can be trusted to guide practice
B	Body of evidence can be trusted to guide practice in most situations
C	Body of evidence provides some support for recommendation(s) but care should be taken in its application
D	Body of evidence is weak and recommendation must be applied with caution
GPP	Good practice point, but there is insufficient direct evidence for a higher grade

EVIDENCE-BASED HEALTH CARE

A range of treatment procedures supported by current research and specialist opinion is described so clinicians can select approaches that match the setting and patient needs. Individual clinicians may use the Guidelines to guide, but not to limit, treatment needed for their patients. Clinicians should favour treatment approaches for which there is reasonable evidence of effectiveness rather than those of uncertain efficacy. It is the responsibility of individual clinicians, as well as health systems which support treatment provision, to ensure the treatments made available are those believed to be the most effective. Interventions not described in these Guidelines were excluded because there was insufficient research supporting their effectiveness, or they were deemed irrelevant because of undeveloped research, or they were not easily implemented.

COMMUNITY AND POPULATION APPROACHES TO ALCOHOL PROBLEMS

These Guidelines focus on the **treatment** of established alcohol problems, not their **prevention**. A key limitation of this approach is that it only addresses the risks and problems once these have become manifest (and only those proportion that engage in treatment). A comprehensive public health approach to reducing the health and social harms associated with alcohol also includes community-level responses aimed at preventing excessive alcohol use which is comprehensively articulated in the *National Alcohol Strategy 2019-2028 (2019)*¹. Like other clinical interventions, these interventions should be supported by evidence of feasibility, effectiveness and cost-effectiveness and are described in detail elsewhere (Ministerial Council on Drug Strategy 2006; RACP & RANZCP, 2016).

¹ <https://www.health.gov.au/resources/publications/national-alcohol-strategy-2019-2028>

Such interventions include:

- Decreasing affordability through increased pricing, to be achieved by volumetric taxation reform;
- Reducing access to alcohol through restricting outlet density, blocking access altogether in specific locations, to certain age groups or at certain hours of the day;
- Restricting alcohol advertising (for example, those targeting high-risk groups, such as young people);
- Running campaigns to promote public awareness of risky patterns of alcohol use;
- Increasing the personal or community consequences associated with excessive drinking; for example, drink-drive legislation and random breath testing with associated penalties, workplace programs that lead to sanctions for presentations under the influence of alcohol.

These important policies are not considered further in these Guidelines.

A NOTE ON TERMINOLOGY

These Guidelines do not use any specific terminology to define the levels of drinking in relation to the Australian Guidelines to Reduce Health Risks from Drinking Alcohol (NHMRC 2020). Definitions of alcohol-related harm and risk levels, and some traditional terms describing levels and patterns of drinking, are also included in the appendix (and in [Chapter 4](#)). Where necessary, we indicate that the levels are either within or in excess of the current Guidelines. Alcohol consumption is described in terms of Australian standard drinks each containing 10g alcohol (see Glossary). Similarly, we often use ‘unhealthy alcohol use’ (an umbrella that includes hazardous or risky alcohol use, problems due to alcohol, and alcohol dependence). Specific diagnostic terms are problematic; there are two major approaches to diagnosis (International Classification of Diseases [ICD] and Diagnostic and Statistical Classification [DSM]), that offer both areas of agreement and of difference. There are significant limitations in both, such as the absence of assessment of consumption level which is both a predictor of harm and goal of treatment (Rehm, 2019). Where reference is made in these Guidelines to a specific body of research, then the correct diagnostic term for that piece of research is used. Elsewhere, we prefer alcohol dependence as this term is recognised within ICD-10 which forms the basis for Australian health service coding and consequently most Australian health service data. In practice, few clinicians use these terms formally by checking diagnostic criteria and counting that each patient meets the diagnostic requirements.

We have avoided stigmatising labels wherever possible, but this is problematic. An alcohol problem, a diagnosis of this disorder, and the terms used to describe the disorder are all stigmatised entities. The term ‘unhealthy alcohol use’ is over inclusive for most purposes of these treatment guidelines. We avoid using the term alcoholic, where possible, and prefer terms such as alcohol-related liver disease.

² Rehm J, Heilig M, Gual A. ICD-11 for Alcohol Use Disorders: Not a Convincing Answer to the Challenges. *Alcohol Clin Exp Res.* 2019;43(11):2296-2300.

We use the term patient rather than client or consumer to refer to the person seeking treatment for a drinking problem. Some evidence shows that users of treatment services themselves prefer this term and we preferred consistency and simplicity. We acknowledge this issue is problematic and that many health professionals prefer not to use this term.

NHMRC GUIDELINES TO REDUCE HEALTH RISKS FROM DRINKING ALCOHOL (2020)

The most recent version of the *National Health and Medical Research Council* (NHMRC) has taken a population health approach. Their aim was to make the information simpler and easier to remember. In general, the Guidelines state that the risk of harm from drinking alcohol increases with the amount consumed. A 'standard drink' refers to the Australian measure, which contains 10g of ethanol.

Guideline 1 advises on reducing the risk of alcohol-related harm; Guideline 2 is for young people, and Guideline 3 is for women who are pregnant or breastfeeding.

AUSTRALIAN GUIDELINES TO REDUCE HEALTH RISKS FROM DRINKING ALCOHOL

GUIDELINE 1: REDUCING THE RISK OF ALCOHOL-RELATED HARM FOR ADULTS

To reduce the risk of harm from alcohol-related disease or injury, healthy men and women should drink no more than 10 standard drinks a week and no more than 4 standard drinks on any one day.

The less you drink, the lower your risk of harm from alcohol.

GUIDELINE 2: CHILDREN AND PEOPLE UNDER 18 YEARS OF AGE

To reduce the risk of injury and other harms to health, children and people under 18 years of age should not drink alcohol.

GUIDELINE 3: WOMEN WHO ARE PREGNANT OR BREASTFEEDING

- A.** To prevent harm from alcohol to their unborn child, women who are pregnant or planning a pregnancy should not drink alcohol.
- B.** For women who are breastfeeding, not drinking alcohol is safest for their baby.

For more information on the Guidelines to Reduce Health Risks from Drinking Alcohol, visit: <https://www.nhmrc.gov.au/health-advice/alcohol>

CHAPTER 2

PREVALENCE OF ALCOHOL CONSUMPTION AND RELATED HARMS IN AUSTRALIA

Authors | Benjamin Riordan, Daniel Winter & Paul Haber

Alcohol offers a mixed legacy to our society, having long been used in a broad range of social, cultural, and religious contexts; some societies routinely permit alcohol use while others frown upon or ban consumption. Reasons for consuming alcohol include relaxation, enjoyment, or as part of a celebration, or in response to boredom, sorrow, sadness or trauma. Frequent consumption can often lead to a habit or compulsive use of alcohol, with a dose-dependent relationship existing between alcohol use and related harms. Such harms include chronic and acute harms to the self, harms to others, along with boarder socioeconomic consequences from alcohol consumption.



PREVALENCE AND PATTERNS OF ALCOHOL USE

KEY POINTS

- Australia lies in the highest 10% of countries for alcohol use and harms. Overall consumption has fallen, along with changes in the types of alcohol beverages consumed.
- Alcohol consumption is higher amongst men (though gender differences are diminishing), younger people, and in regional areas.
- Consumption also remains higher among sexuality and gender diverse individuals, and some culturally and linguistically diverse individuals.

Per capita alcohol consumption in Australia reached the lowest point in 50 years, at 9.4 litres of pure alcohol consumed in 2017 (Figure 1). Nonetheless, Australia is still above the OECD average (8.9 litres), ranking 16th for per-capita alcohol consumption. In the past 50 years, there has also been a change in the type of alcohol consumed; Beer consumption has dropped from 75% of overall alcohol consumed to 39%, while wine has increased from 12% to 38% (Figure 1).

FIGURE 2.1: Per capita alcohol consumption

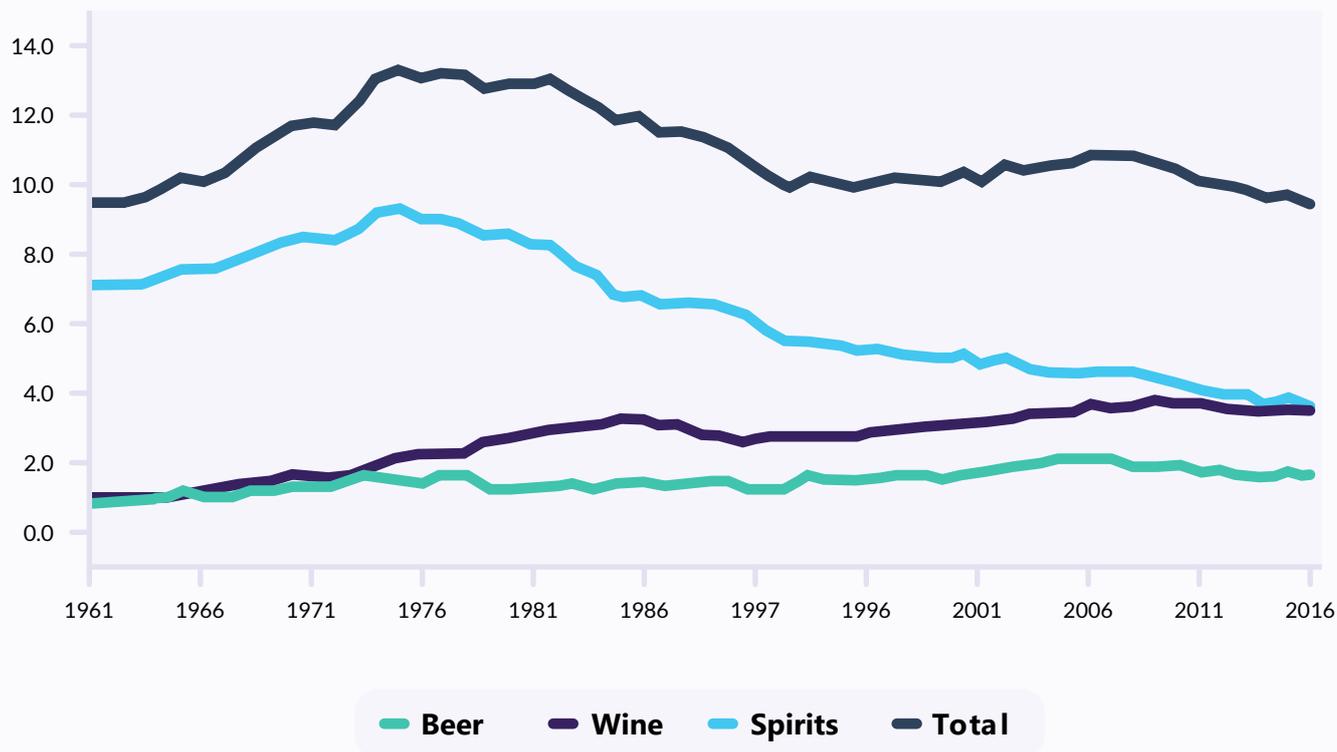


Figure 2.1: Per capita alcohol consumption (aged 15+) by beverage type from 1961-2017.

BOX 2.1: THE PREVENTION PARADOX OF ALCOHOL USE & HARMIS

Despite reductions in consumption, Australia is still seeing a rise in harms due to alcohol. It has been argued this paradox can be attributed to the majority of alcohol (58%) being consumed by a small proportion of high risk people who drink, while social or low risk people who drink are reducing consumption. However, reductions in consumption by low risk people who drink does not impact significantly on the risk of harms.

This suggests that public health messaging is more effective for low risk people who drink who consequently drink less, but with minimal change in harms. Conversely, high risk people who drink appear less responsive and high rates of harm continue, reflecting the 'prevention paradox' as seen in other countries, and other areas of public health.

The most comprehensive estimate of patterns and prevalence of drinking in Australia is from the National Drug Strategy Household Survey, with 2016 results indicating that 77% of Australians aged 14 and over reported drinking alcohol in the 12 months prior. There was also an overall downward trend in drinking, with the proportion of those reporting no past year consumption steadily increasing since 2001 (18% vs. 23%). There were also significant declines in the number of daily people who drink (6.5% to 5.9%), weekly people who drink (37.3% to 35.8%), along with a significant increase in those who drink less than weekly (34.5% to 35.8%).

SPECIFIC POPULATIONS IN AUSTRALIA

Invariably, there are differences in the consumption patterns of alcohol among specific populations. Here, we summarise patterns of some key population groups:

POPULATION	PATTERNS OF CONSUMPTION
Gender	<ul style="list-style-type: none">• Men tend to begin drinking younger, report more daily & weekly drinking, and are more likely to have ever consumed alcohol.• Men are more likely than women to drink more than two drinks on a drinking day or drink more than four in a single session.• While women drink less, they also appear to be reducing their drinking at a lower rate than men.
Age	<ul style="list-style-type: none">• Older adults are more likely to report daily drinking and those aged 70+ stand out, with 13.6% reporting daily drinking.• Younger adults (18-24) are more likely to drink more than 4 drinks per session and are more likely to report extreme drinking sessions (11 or more drinks per session).• There has been a significant reduction in the proportion of people who drink in the past decade, though older adults have remained relatively consistent.
Geographic location	<ul style="list-style-type: none">• All States and Territories have seen a reduction in daily drinking from 2001 to 2016, but only a significant reduction in the proportion of daily drinking in the Australian Capital Territory (6.6% to 3.6%).• The Northern Territory had the highest proportion of people aged 15 years or older who drink daily (7.3%).• Australians who live in more remote areas report a greater proportion of monthly drinking sessions where they consume 4 or more drinks (36.7% vs. 24.2%), yearly extreme drinking sessions (24.6% vs. 14.4%), and at least monthly extreme drinking sessions (15.0% vs. 6.3%).
Socioeconomic position	<ul style="list-style-type: none">• Those living in more advantaged conditions (5th quartile) compared to least advantaged (1st quartile), are less likely to abstain (18.2% vs. 31.8%) and are more likely to drink 4 or more drinks in a single session monthly (12.5% vs. 9.0%) or yearly (25.9% vs. 23.5%).
Aboriginal and Torres Strait Islander peoples	<ul style="list-style-type: none">• The overall proportion of Aboriginal and Torres Strait Islander peoples who drink alcohol (69%) is smaller than in the general population (77%).• However, those who do drink tend to drink in larger and more harmful quantities. Specifically, 18.8% of Aboriginal and Torres Strait Islander peoples report consuming 11 or more standard drinks in a month, which is greater than non-Indigenous people (6.8%).

POPULATION

PATTERNS OF CONSUMPTION

Sexuality and gender diverse peoples

- Since 2010, those who identify as sexuality and gender diverse are more likely to drink (85.6% vs. 79.7%), drink 4 or more drinks on a drinking day (70.3% vs. 50.1%) and report an extreme drinking session in the past year (27.8% vs. 15.3%).

Culturally and linguistically diverse peoples

- While consumption varies among culturally and linguistically diverse peoples, those whose main language at home was a language other than English were more likely to be not drink and were less likely to drink at risky levels or have an extreme drinking session.

ALCOHOL-RELATED HARMS

Alcohol is the most harmful drug in Australia. Although fentanyl, heroin, and crystal methamphetamine are more harmful to the individual, alcohol is most the harmful drug to others and most harmful overall (both when accounting and not accounting for prevalence). In particular, alcohol has specific harms to the individual (drug-related morbidity, drug-specific morbidity) and others (economic costs, family adversity, injury to others).

KEY POINTS

- Alcohol-related deaths have risen, with 5,552 deaths attributed to alcohol in 2017.
- Alcohol consumption is linked to over 200 diseases, including alcohol-related injuries, cancers, cardiovascular diseases, and liver disease. This contributes to 4.6% of Australia's overall burden of disease.
- There are more than 150,000 alcohol-related hospitalisations per year.
- Alcohol use negatively impacts the economy; conservative estimates in 2010 suggest a \$14.4 billion cost to the economy, more than double Australia's alcohol-related tax revenue.

ALCOHOL-RELATED DEATHS AND THE BURDEN OF DISEASE

In 2017, alcohol use attributed to 5,552 deaths in Australia, comprising 1,366 alcohol-induced deaths and 4,186 deaths mentioning alcohol. Unlike the decline of per-capita alcohol use, alcohol-related deaths in 2017 reached its highest number in 20 years (5.1 deaths per 100,000). Similar to global estimates, the burden of alcohol-attributable deaths is distributed unevenly across the

population; men are over-represented in mortality and morbidity and are 3.5 times more likely to die. However, alcohol-related harms increase for women as they age, and alcohol-attributable deaths, predominantly cancers in those aged 50 years or older, are higher in women (27.1%) than in men (18.9%).

In Australia, alcohol contributed to 4.6% of the burden of disease in 2011, with alcohol-related injuries, cancers, and liver diseases responsible for most of the alcohol-related disability-adjusted life years (DALYs). Despite the downward trend of alcohol consumption, alcohol-related deaths and DALYs did not see a similar downward trend.

	MALES			FEMALES		
	2005	2010	2016	2005	2010	2016
Alcohol-attributable Mortality	8.4%	8.5%	8.4%	1.9%	2.1%	2.2%
Alcohol-related DALYs	8.2%	8.4%	8.2%	0.7%	1.2%	1.4%

ALCOHOL-RELATED INJURIES AND HOSPITALISATIONS

It is estimated that there are more than 150,000 alcohol-related hospitalisations every year in Australia. Despite the decline in alcohol consumption, alcohol attributable emergency department presentations, hospitalisations, and ambulance attendances have remained stable or increased. For example, for those aged 15+ years, alcohol-related hospitalisation trends between 2003-2013 increased to 2009 and then stabilised. Further, there appeared to be a slight increase (rather than decreasing with per-capita use) in emergency department presentations.

HARM TO OTHERS

The overall effects of alcohol-related harm also extends to the social and economic costs to families, communities and society at large. Alcohol use or intoxication is implicated in domestic and public violence, unemployment, financial problems and poverty, drink driving, traffic accidents, industrial and work accidents, fires, falls, and suicide.

As mentioned above, when ranking alcohol’s harm in Australia, alcohol was the drug that had the greatest harm to others. While harms to others is less quantifiable than individual harms, evidence suggests that 22.2% of Australians had experienced an incident due to someone else’s alcohol use. Specifically, 18.7% had been verbally abused, 7.3% had been physically abused, and 11.4% had been fearful.

ECONOMIC IMPACTS

Alcohol use also has an economic impact, resulting in lost productivity, and places a burden on healthcare, law enforcement, and the judiciary. In 2010, the estimated financial burden of alcohol use in Australia was \$14.4 billion, more than double the \$7.1 billion generated in alcohol-related tax revenue. The greatest contributors to economic burden include lost productivity (\$6.1 billion), traffic accidents (\$3.7 billion), criminal justice (\$3.0 billion), and healthcare (\$7.7 billion). While these estimates are likely conservative, as it does not estimate the economic impacts on others, estimates in 2005 suggest that harms to others due to alcohol cost Australia \$6.8 billion.

CHAPTER 3

STIGMA AND DISCRIMINATION

Authors | Liz Barrett, Alison Ritter, Kari Lancaster & Kate Seear

This chapter covers how to consider stigma and discrimination when dealing with people experiencing problematic alcohol use.

STIGMA AND DISCRIMINATION

WHAT IS STIGMA?

Stigma is a label or stereotype that devalues, discredits, and discriminates against individuals. It can result in a range of negative material and social outcomes including exclusion from, and denial of, health services. It is also a fundamental cause of health and wellbeing inequalities. Stigma and discrimination are generally exercised and experienced beyond unfair treatment at the individual level, and are supported through, and manifested in, broader societal structures and systems. Discrimination against anyone is unacceptable.

STIGMA AND ITS LINKS TO ALCOHOL USE

People experiencing problematic alcohol use are highly stigmatised, with many regarding it as a personal moral failing that is undeserving of sympathy; and others holding negative stereotypical views about people who are experiencing substance dependency. Alcohol-related stigma is likely to be more prevalent and compounded amongst already marginalised and discriminated-against groups. However, stigma may also occur in the absence of problematic consumption for some groups, such as pregnant women, Aboriginal and Torres Strait Islander peoples, and those experiencing poverty and homelessness.

HOW DOES STIGMA MANIFEST IN CLINICAL SETTINGS?

"I was seen by the head of [the general hospital department (not drug and alcohol service)] and he just berated the crap out of me for drinking and you know, not particularly helpful. That's not really going to make someone who's not feeling very good about themselves and their drinking habits stop drinking, just because someone slaps you around your head a little bit."

Research has found that stigma is common across healthcare settings for people experiencing problems with alcohol. It is a significant barrier to accessing health and other services with examples of practitioners denying treatment or appropriate care to patients experiencing alcohol dependency, including practitioners not wanting to 'take on' patients with known substance use problems for fear of 'attracting more' to their practice.

Patients have reported receiving sub-par treatment such as: being offered advice based on clinicians own opinions rather than evidence; being told to simply cease alcohol use (i.e. pursue abstinence without support), being talked down to and scolded or blamed for the problems they are experiencing with alcohol. These experiences and fear of stigma deters help-seeking and can readily become internalised, resulting in lower self-efficacy, self-esteem and internalised blame.

This in turn impacts on treatment outcomes, decreasing the likelihood of treatment completion and increasing depression and substance use.

PRACTITIONER EDUCATION AND TRAINING TO REDUCE ALCOHOL-RELATED STIGMA IN HEALTH SETTINGS

Anti-stigma training has been found to change discriminatory attitudes with the most successful training found to be peer-led and/or include contact-based training, promotion of positive stories, “myth-busting”, and experiential or interactional learning (e.g. through role playing or use of case studies and examples).

	RECOMMENDATION	GRADE OF RECOMMENDATION
3.1	All healthcare workers should consider undertaking anti-stigma training, specifically those courses that are peer-led or have had substantial peer input into their development, and entail experiential learning	B

LANGUAGE AND STIGMA

The language used by health practitioners can also perpetuate stigma. Terms that are prejudicial and conflate the individual with their alcohol consumption, such as “alcoholic” or “addict” should never be used and should instead be replaced with person-centred language. Diagnostic labels can also have stigmatising effects and alcohol-related disorders such as liver disease should not be described as ‘alcoholic liver disease’. Language guides developed by people with lived experience of problematic alcohol and other drug use should be referred to by clinicians for non-stigmatising terminology.

	RECOMMENDATION	GRADE OF RECOMMENDATION
3.2	All health professionals should continually review their use of language and ensure they do not use pejorative or discriminatory language or non-verbal communication: <ul style="list-style-type: none">• In front of or to a patient;• About patients to other people, including other staff members; and• In public discussions, including the media	C
3.3	Health professionals should refer to language guides developed by peer-support organisations or produced by recognised organisations (for example such as NUAA) or other authorities	GPP

NON-STIGMATISING PRACTICE

To avoid discriminatory practice, it is important that clinicians implement best practice, quality care and interventions (as described in these guidelines) just as they would for any other health issue and/or lifestyle risk factors. Best-practice principles for clinicians managing people experiencing problems with alcohol include:

- Compassionate, non-judgmental communication and care, and the ability of all staff to empathise, listen and provide support
- person-centred care that involves patients in discussions about their treatment
- strengths-based approaches that avoid characterising people merely by their use of substances (for example labelling someone an “alcoholic”).

	RECOMMENDATION	GRADE OF RECOMMENDATION
3.4	All health professionals should apply best-practice standards (relevant to their own professions) to all patients irrespective of their alcohol use	GPP
3.5	Use person-centred practice that treats patients with respect and compassion and includes them in decision-making about their treatment	GPP
3.6	Consider using strengths-based practice for patients who may be or who disclose they are experiencing problems with alcohol	GPP
3.7	Refrain from making moral or personal judgements about alcohol use	GPP

CHANGING THE ENVIRONMENT IN WHICH HEALTH CARE PROFESSIONALS WORK

Structures in health care settings such as policies, practices and norms can exacerbate stigma and discrimination. Workplace cultures that normalise stigma can influence whether or not patients are treated with care, respect and attention.

A range of interventions at an organisational level can be employed to challenge stigma in a healthcare service.

RECOMMENDATION	GRADE OF RECOMMENDATION
<p>3.8 All health professionals should consider advocating for, or supporting change in the social, political and structural factors that perpetuate stigma against people experiencing problems with alcohol</p> <ol style="list-style-type: none"> 1. consult with their workforce about current practice towards people experiencing alcohol problems and how it may be improved; and 2. implement cultural change initiatives such as review of mission statements or goals, or inclusion of anti-stigma actions in organisational plans and measurements, such as Key Performance Indicators. 	GPP
<p>3.9 Large healthcare organisations and/or those who have high volumes of patients experiencing problems with alcohol should consider hiring peer workers and/or patient liaison officers</p>	GPP
<p>3.10 All health practices should have an effective and accessible complaints mechanism</p>	GPP
<p>3.11 Internal audits of complaint mechanisms should assess whether they are:</p> <ul style="list-style-type: none"> • available • have ease of access including for those with low literacy • publicly and openly advertised • non-stigmatising e.g. anonymous 	GPP
<p>3.12 Treatment settings that specialise in treating alcohol use disorder should conduct periodic audits of discriminatory practices</p>	GPP

BROAD SOCIETAL CHANGES

Given the link between alcohol-related stigma and lack of access to services, anti-stigma initiatives should be integrated into broader public health efforts. Research from the mental health field promotes a role for health professionals in taking on a public advocacy role in challenging stigma and seeing this as part of their profession and for health professionals more broadly to use their high standing in society to campaign at a policy level for adequate clinical resources and research to combat stigma.

RECOMMENDATION	GRADE OF RECOMMENDATION
3.13	All health professionals should consider advocating for, or supporting change in the social, political and structural factors that perpetuate stigma against people experiencing problems with alcohol
	GPP

CHAPTER 4

SCREENING AND ASSESSMENT

Authors | John Saunders, Jason Connor & Daniel Stjepanovic

This chapter provides clinical guidance about the role, and implementation of methods to identify unhealthy alcohol consumption comprehensive assessment of alcohol problems, and an overview of treatment planning.

SCREENING AND ASSESSMENT

EARLY DETECTION AND SCREENING

Early detection aims to identify if a person has a form of unhealthy alcohol use, an umbrella that includes hazardous or risky alcohol use, problems due to alcohol, and alcohol dependence. The term screening refers to a proactive and/or systematic approach to early detection which aims to identify those who are most likely to have unhealthy alcohol use and to benefit from an intervention. The objective of early detection is to provide an appropriate initial intervention and to identify persons who may require more comprehensive assessment and more detailed treatment or referral to such treatment. Screening is often combined with an initial brief, time-limited intervention aimed at reducing consumption especially among those with hazardous or risky drinking patterns. Screening methods have been evaluated in a wide range of settings.

WHERE TO SCREEN

The settings where screening and assessment occur are varied. Screening should be conducted in settings where the prevalence of risky drinking is likely to be highest and where detection will have the greatest salience for both the healthcare worker and the the person who drinks. The settings appropriate for screening are varied but include:

- general practice and other primary care settings;
- emergency departments; and
- hospital settings, including wards and clinics.

In addition, consideration may be given to screening in:

- community health, welfare and general counselling services; and
- high-risk workplaces.

The order of these settings reflects their probable effect; medical settings are most likely to show a high rate of identification.

GENERAL PRACTICE AND OTHER PRIMARY CARE SETTINGS

There is substantial under-recognition of unhealthy alcohol use in primary care settings. At a global level, up to 60% of patients with alcohol use disorder are not detected when practitioners rely solely on their clinical judgments. Data from Australian and global contexts

indicate that screening and early intervention in primary care settings is effective in reducing alcohol intake and cost effective. Detection and brief intervention activities should therefore be encouraged in general and relevant specialist medical practices. Because of their role in primary health care and their high rate of contact with the general public, general practitioners are ideally placed to detect and offer patients help with drug and alcohol problems.

Several initiatives to encourage screening in Australian general practice settings exist. They include the Smoking, Nutrition, Alcohol and Physical Activity (SNAP) framework for general practitioners (University of New South Wales) and the Drink-Less package (University of Sydney).

Data from Australian and global primary care providers has identified a number of barriers to the implementation of early detection and screening. Key amongst those identified were (i) lack of institutional support or time, (ii) stigma and stereotypes of “problem drinking”, and (iii) perceived threat to the patient-doctor relationship.

EMERGENCY DEPARTMENTS

Emergency departments are generally regarded as another form of primary care, in that no prior referral is needed. The focus of emergency departments, however, differs markedly from other forms of primary care with a strong focus on patient triage, resuscitation and stabilisation, and referral to ongoing management.

Alcohol consumption is significantly reduced following screening and brief intervention in emergency departments, though the duration of this effect appears to be short lived. A number of existing studies have also noted reductions in secondary outcomes such as days of alcohol use. Given the high prevalence of alcohol-related harm in emergency departments, detection and brief intervention should be encouraged.

HOSPITAL WARDS AND CLINICS

Persons with unhealthy alcohol use form a high proportion of hospital patients, amounting to approximately 20% overall and up to 80% in some locations. However, approximately half of patients with alcohol use disorder are not identified by hospital staff.

Nonetheless, there are strong grounds for general hospitals to have systematic screening procedures in place for unhealthy alcohol use among inpatients and outpatients, and procedures for appropriate interventions. The benefits of such procedures include earlier recognition, prevention and treatment of alcohol withdrawal and alcohol-related medical disorders, and reduced lengths of stay and in-hospital morbidity. All hospitals should have in place routine procedures for facilitating follow-up in the community following discharge.

In summary, hospital-based interventions may include:

- brief interventions delivered by general hospital medical, nursing and allied health professionals;
- management of withdrawal, intoxication, and other alcohol-related medical morbidity; and

- referral back to the general practitioner and other referral services, providing feedback about the level of risky consumption and advising the need for ongoing monitoring and further intervention.

Strategies to increase the detection rate in the hospital setting include:

- undergraduate and postgraduate multidisciplinary training;
- system redesign incorporating systematic electronic recording of alcohol consumption data, or equivalent paper-based information systems; and
- specialist drug and alcohol consultation liaison services within all hospitals.

WELFARE AND GENERAL COUNSELLING SERVICES

Beyond general medical practice, there is a range of welfare and general counselling services where individuals can self-refer. These include, inter alia, homeless shelters, criminal justice settings, and family protection services. Screening in these contexts offers the opportunity for problem identification and referral for intervention. It is likely in a significant proportion of cases that excessive alcohol intake has contributed to the presenting problem (relationship, financial, parenting, mental health, employment, violence, housing). However, due to the breadth of services available and lack of Australian data, it is difficult to draw conclusions as to the effectiveness of screening in these other primary care contexts. Other data have indicated mixed results for screening implemented in welfare contexts, possibly due to the highly heterogeneous nature of the context.

THE WORKPLACE

Evidence of high rates of problem drinking in some workplace settings suggests it is a suitable venue for detection of risky drinking and intervention. Such screening and intervention has the potential to increase the health and safety of workers, and limit hazards and accidents in the workplace.

Detection of unsafe alcohol consumption should form part of any routine health evaluation in safety-critical workplaces. Workplace occupational health and safety procedures should identify appropriate strategies and referral options for those workers identified as having alcohol-related problems. Individuals identified during screening should be offered referral for assessment by a clinician with expertise in diagnosis and management of alcohol use disorders. Those with alcohol use disorders should be offered treatment, as described in these guidelines.

	RECOMMENDATION	GRADE OF RECOMMENDATION
4.1	Screening for unhealthy alcohol use and appropriate intervention systems should be widely implemented in general practice .	A

	RECOMMENDATION	GRADE OF RECOMMENDATION
4.2	Screening for unhealthy alcohol use and appropriate intervention should be widely implemented in emergency departments .	C
4.3	Screening for unhealthy alcohol use and appropriate intervention systems should be widely implemented in hospitals .	B
4.4	Screening for unhealthy alcohol use and appropriate intervention systems should be widely implemented in community health and welfare settings .	C
4.5	Screening for unhealthy alcohol use and appropriate intervention systems are feasible in specialist settings where alcohol use is high. There is insufficient evidence at this time to recommend wider implementation.	C
4.6	Screening for unhealthy alcohol use and appropriate intervention systems should be prioritised in high-risk workplaces .	D

HOW TO SCREEN

The methods for detecting people who drink at a risky level include:

- asking the person about their alcohol consumption (quantity–frequency estimates)
- using systematic screening questionnaires
- physically examining the person for intoxication or signs of harmful use of alcohol
- observing the biological markers of excessive alcohol consumption.

The approaches used to detect people with risky drinking patterns vary considerably across settings. In some settings routine screening of all patients is recommended, in others this may not be feasible. Under such circumstances, it is important to identify unhealthy alcohol use where they are relevant to the presenting problem.

ASKING THE PERSON ABOUT THEIR ALCOHOL CONSUMPTION (QUANTITY–FREQUENCY ESTIMATES)

A quantitative alcohol history can be a reliable method of detecting risky patterns of alcohol consumption. Such a history comprises:

- the daily average consumption (grams per day or standard drinks per day) of alcohol
- the number of drinking days per week (or month).

Where use exceeds that recommended in the NHMRC guidelines, a more detailed assessment is indicated to exclude harmful use and/or dependence.

The quantity-frequency approach has been adopted in the US for screening. It is also the basis for using the first three questions in the AUDIT questionnaire (the AUDIT-C, below).

The health professional's interviewing style is important, and includes:

- taking a non-judgmental approach which normalises alcohol use (for example, asking about a range of lifestyle factors including nutrition, tobacco use, caffeine intake, alcohol use)
- taking a 'top down' approach (for example, suggesting a level of drinking that is higher than expected so the patient is more likely to feel comfortable admitting the real level of drinking by bringing the estimation down to the correct level).

It is important to carefully interpret language. For example, if a patient reports 'a drink', this might mean one standard drink or a night of heavy drinking. Quantitative measures should replace non-specific terms, such as a 'social drink'.

	RECOMMENDATION	GRADE OF RECOMMENDATION
4.7	Quantity–frequency estimates is the recommended approach to detect levels of consumption in excess of the NHMRC 2020 guidelines in the general population.	B

USING SCREENING QUESTIONNAIRES

One established method for detecting people with risky drinking habits is that of using a standard questionnaire. Many questionnaires have been designed to screen for alcohol dependence, but only a few have been devised specifically to detect people who drink at a risky level who may be non-dependent. A comprehensive list of the available instruments for research use has been published (see [Review of the Evidence](#) and [Appendix](#)).

Although none have been evaluated in relation to the current NHMRC guidelines, the recommended instruments are the Alcohol Use Disorders Identification Test (AUDIT) or related versions, such as AUDIT-C and AUDIT-3.

ALCOHOL USE DISORDERS IDENTIFICATION TEST

The World Health Organization developed the AUDIT questionnaire, which is designed to detect people with risky alcohol consumption (see [Appendix](#)). AUDIT consists of ten questions that represent the three major conceptual domains of intake (Questions 1 to 3), dependence (Questions 4 to 6) and problems (Questions 7 to 10). It effectively distinguishes between risky and non-risky people who drink, identifies dependent people who drink, and has cross-cultural validity. It is short (10 items), may be self-administered, and is suitable for primary health care settings.

AUDIT has demonstrated validity among a wide range of patient populations, including those attending primary care settings, adolescents, drug-dependent patients, cross-cultural groups, drink-drivers, emergency ward patients, psychiatric patients, and pregnant women. AUDIT performs as well as the Michigan Alcoholism Screening Test (MAST) and the CAGE for identifying dependent drinking, and has higher sensitivity and specificity for harmful and hazardous drinking. Scores of 8 or more indicate presumptive harmful or hazardous alcohol consumption, and a score of 15 or more suggests the need to assess for alcohol dependence.

A shortened version of AUDIT – AUDIT-C – consists of only alcohol consumption Questions 1 to 3 (Table 3.1). It has been used successfully to detect DSM-5 alcohol use disorder in samples drawn from US college students and the general adult population of Germany. A score of 5 or more indicates further assessment is required.

The third question of the AUDIT taken alone (AUDIT-3) has been shown to have almost as good sensitivity and specificity as the longer forms.

FIGURE 4.1: AUDIT-C

1. HOW OFTEN DO YOU HAVE A DRINK CONTAINING ALCOHOL?

NEVER	MONTHLY OR LESS	2 – 4 TIMES A MONTH	2 – 3 TIMES A WEEK	4 OR MORE TIMES A WEEK
0	1	2	3	4

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 OR 9	10 OR MORE
0	1	2	3	4

3. HOW OFTEN DO YOU HAVE SIX OR MORE DRINKS ON ONE OCCASION?

NEVER	LESS THAN MONTHLY	MONTHLY	WEEKLY	DAILY OR ALMOST DAILY
0	1	2	3	4

NIAAA-RECOMMENDED SCREENER

The US National Institute on Alcohol Abuse and Alcoholism (NIAAA) developed a 2-step screener that, in the first step, establishes if a patient consumes alcohol, and in the second asks how many times in the past year the individual has exceeded national guidelines. This instrument is frequently shortened by dropping the first step, creating a single-question instrument that requires no scoring.

The NIAAA-recommended screener has been widely adopted in the USA, with meta-analytic studies finding high success in detecting a wide spectrum of unhealthy alcohol use, being generally comparable with the AUDIT-C.

MAST AND CAGE QUESTIONNAIRE

Instruments such as the MAST and the CAGE questionnaires (see [Appendix](#)) were devised for their ability to distinguish chronic alcohol dependent people from non-alcohol dependent people. While their performance is good, in that 95% or more of chronic alcohol dependent people are detected, they are much less effective in detecting people with less severe drinking problems. Because of this limitation they are not advocated for screening in primary care settings.

OTHER QUESTIONNAIRES

The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) is a useful screening questionnaire, recommended by the World Health Organization, which includes alcohol with other substances (see [Chapter 20](#)).

Additionally, a number of other screening instruments have been developed to overcome the limitations of existing approaches. These are most useful for research rather than clinical settings and are not considered further in these guidelines.

	RECOMMENDATION	GRADE OF RECOMMENDATION
4.8	The AUDIT is the most effective screening tool available and is recommended for use in primary care and hospital populations. For screening in the general community the AUDIT-C is an alternative and can be used as a first-phase screening tool.	A

SCREENING FOR ALCOHOL USE IN PREGNANT WOMEN

NHMRC advice in 2020 is that it is safest to consume no alcohol during pregnancy, and in line with international guidelines. The low levels of consumption highlighted as a concern in recent guidelines cannot be identified using current questionnaires. A clinical history to estimate the quantity and frequency of alcohol use is the preferred method.

In light of the potential for adverse effects on the foetus, screening for alcohol use should be included in the usual antenatal history. All pregnant women should be asked about their level of alcohol consumption in the context of a clinical assessment.

All pregnant women should be made aware of the current recommendations relating to alcohol use during pregnancy. If alcohol use continues, a full assessment of alcohol intake and any adverse effects should be sensitively undertaken and appropriate referrals should be made. It is appropriate to reassure pregnant women drinking minimal amounts of alcohol (for example, 1–2 standard drinks per week without escalation to higher amounts) that there remains no evidence that this is harmful.

The ASSIST questionnaire that screens for alcohol and other substances has been shortened to screen for use in this population, but is not recommended due to low sensitivity in detecting alcohol use in pregnant women.

See [Chapter 14](#) *Pregnant and breastfeeding women* for more information.

PHYSICAL EXAMINATION FOR INTOXICATION OR SIGNS OF HARMFUL USE OF ALCOHOL

Certain physical disorders or signs can act be indicative of harmful alcohol use or intoxication. Conditions such as cirrhosis of the liver and pancreatitis are commonly alcohol-induced. Some physical signs that may be indicative of intoxication, harmful alcohol use, or withdrawal are listed below.

While the ‘listen’ physical signs can be indicative of alcohol misuse, it should be noted that they are not conclusive, nor does their absence rule out the existence of hazardous alcohol consumption.

COMMON FEATURES PRESENT DURING PHYSICAL EXAMINATION

Smell of alcohol on breath

Facial flushing, telangiectasia, periorbital oedema, parotid swelling

Poor self-care, malnourishment, vitamin deficiency

Pallor, fever, flushing

Hypertension

Bruises of different ages

Conjunctival injection

Sweating (alcohol withdrawal)

Tremors (alcohol withdrawal)

Jaundice (alcohol-related liver disease)

Source: Saunders et al. (2016). Addiction Medicine. Chapter 5.

Patients presenting with such problems should be screened for alcohol use, and if appropriate, proceed to a more comprehensive assessment.

BIOLOGICAL MARKERS OF EXCESSIVE ALCOHOL CONSUMPTION

Biological markers of excessive alcohol use include direct measures of alcohol (for example, alcohol in breath or blood), and measures of various alcohol metabolites. There exist several indirect indices such as liver enzymes activity, the levels of carbohydrate-deficient transferrin, the mean erythrocyte cell volume and others.

MEASURES OF ALCOHOL LEVELS

Measures of alcohol concentration (in breath and blood) are important when screening for alcohol use in occupational and other settings. They are useful indicators in emergency departments and in outpatient clinics to confirm recent alcohol use and to assess suspected intoxication. Alcohol breath tests are less invasive and are widely used in roadside testing. The correlation between alcohol concentrations and intoxication may be affected by a range of factors, including tolerance, and may require careful clinical interpretation.

INDIRECT MARKERS

A number of indirect biological markers are used to detect alcohol consumption, namely:

- liver function tests:
 - alanine aminotransferase (ALT)
 - aspartate aminotransferase (AST)
 - gamma-glutamyltransferase (GGT)
- carbohydrate-deficient transferrin (CDT)
- mean corpuscular volume (MCV)
- uric acid
- 5-Hydroxytryptophol (5-HTOL)
- Phosphatidylethanol (PEth)
- Fatty Acid Ethyl Esters (FAEE)
- Ethyl Glucuronide (EtG)
- Ethyl Sulphate (EtS).

Serum GGT, a liver enzyme, is the most useful of the currently available tests but has only moderate sensitivity and specificity. It is elevated in 30% of patients with alcohol dependence in primary care and, depending on the clinical circumstances, 50 to 70% of hospitalised patients with alcohol dependence. However, it is less likely to be raised in women and young people. It is part of

the multichannel biochemical analysis offered under the Medicare Pathology Schedule, as is AST and ALT.

Elevated GGT levels are not specific for alcohol use and may occur with other conditions, including:

- obesity (now the most common cause for elevated GGT levels in some populations)
- obstructive liver disease
- medications that induce hepatic cytochromes (such as anticonvulsants).

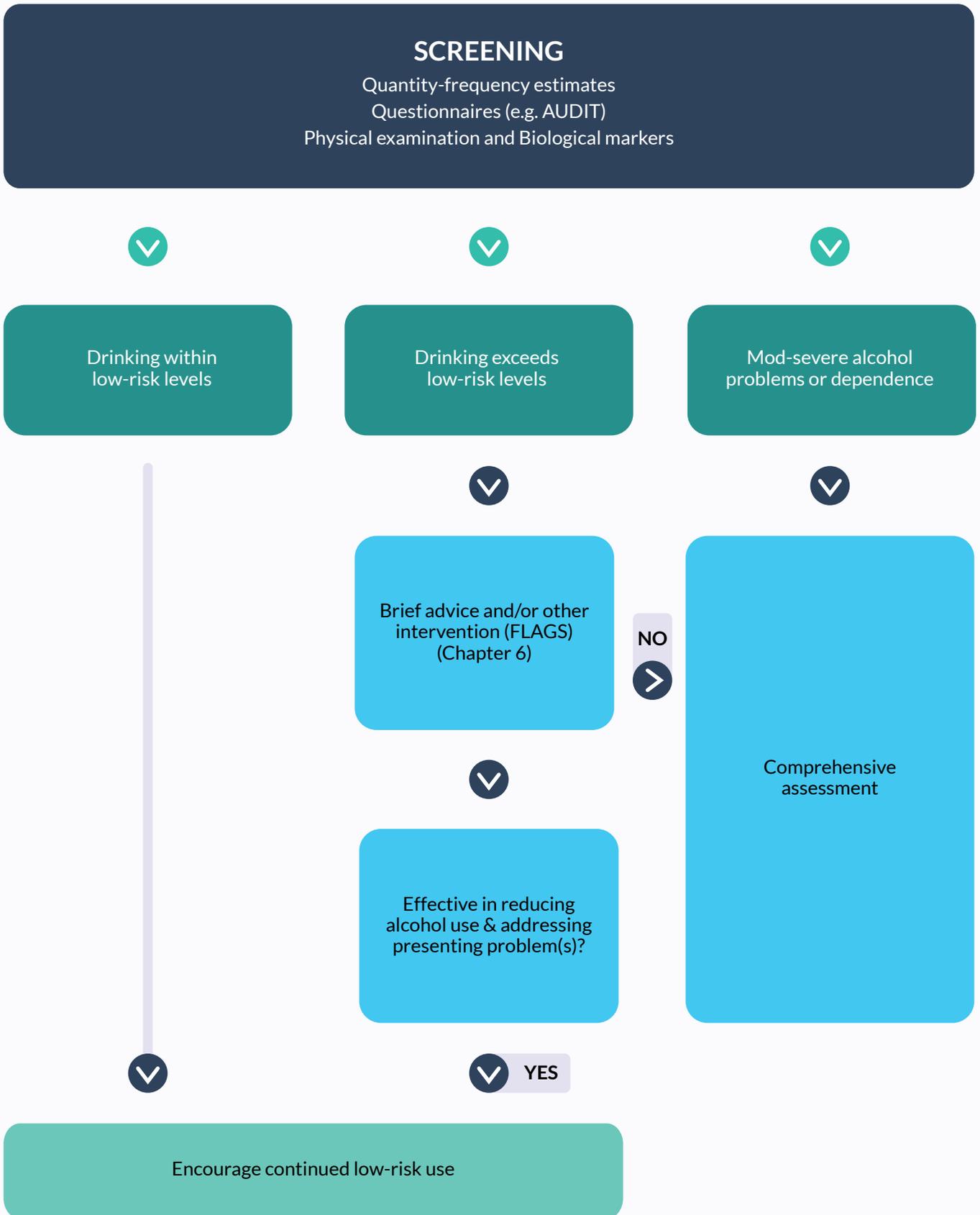
CDT is a sensitive and highly specific marker of unhealthy alcohol use, there being very few causes of an elevated CDT other than alcohol. However, the CDT assay is not reimbursed by Medicare and is rarely used outside forensic and medicolegal settings.

Recently discovered biomarkers such as 5-HTOL, PEth, FAEE and EtG are relatively unaffected by disease state, but their cost and exclusion from the Medicare schedule limits their usefulness in everyday clinical practice.

Because of the greater sensitivity and specificity of questionnaire approaches (such as AUDIT) these are preferred to biological markers. Biological markers should only be used as an adjunct to other screening measures.

	RECOMMENDATION	GRADE OF RECOMMENDATION
4.9	Direct measures of alcohol in breath (with high quality and calibrated breathalysers) and/or blood can be useful markers of recent use and in the assessment of intoxication.	B
4.10	Indirect biological markers (liver function tests or carbohydrate-deficient transferrin) should be used as an adjunct to other screening measures as they have lower sensitivity and specificity in detecting at-risk people than structured questionnaire approaches (such as AUDIT). Biological markers may be useful if self-report or questionnaire data are not attainable.	A
4.11	Many of the newer biological markers not covered by medical rebates (high private costs) and/or only available from specialist laboratories (limited availability) might be considered in medico-legal assessments, where self-report or questionnaire data is not attainable and consequences of drinking are major: e.g. pre liver transplant assessments.	GPP

FIGURE 4.2: Screening



EARLY DETECTION AND SCREENING PREPARATORY TO AN INTERVENTION

Patients drinking above low-risk levels (see NHMRC recommendations) should be offered a brief intervention. Those experiencing moderate to severe alcohol related problems, including dependence, require more comprehensive assessment and intensive treatment approaches (Figure 4.1)

COMPREHENSIVE CLINICAL ASSESSMENT

Many persons with unhealthy alcohol use identified through an early detection (screening) approach will respond to a brief intervention. Where it is apparent that the individual has significant alcohol-related harm or does not respond to brief intervention, comprehensive clinical assessment is indicated to guide the practitioner to further management. Further assessment is therefore indicated for those who have:

- not responded to advice to reduce their consumption of alcohol
- more substantial alcohol-related problems
- asked for or need help to deal with their drinking.

Assessment should include diagnostic interviews, physical examination, investigation of clinical and biological markers, and gathering of collateral information about the patient. Assessment intensity and detail varies across settings; the amount of assessment relates to the level of specialisation in alcohol problems. The areas for assessment include:

- alcohol consumption pattern
- severity of dependence
- alcohol-related harms (such as physical and psychological health problems, relationship problems, occupational problems and legal problems)
- motivation to change
- family factors
- cognitive functioning.

The need for comprehensive assessment must be balanced with the desire to engage and retain the patient in treatment. If the patient perceives that little or no progress is being made in the first sessions, their motivation to stay in treatment may wane. The assessment might be spread over several sessions, allowing some time in each session for setting preliminary treatment goals and working toward those goals. As more in-depth assessment occurs, these treatment goals and strategies may need adjustment. Assessment continues throughout treatment as the patient's progress is measured against the treatment goals.

From the first contact with the patient it is important to instil a sense of hope and a belief that change is possible. This is especially important in patients who have repeatedly tried to alter their drinking habits and failed. Self-efficacy (that is, the patient's belief that there is something they

can do about their problem) is an important factor in treatment success. Self-efficacy may, in turn, be influenced by the therapeutic relationship (see [Chapter 6](#)).

PURPOSE OF ASSESSMENT

Assessment has three important functions, namely:

TO ASSIST THE PATIENT AND CLINICIAN TO IDENTIFY SHARED TREATMENT GOALS AND DEVELOP A TREATMENT PLAN

Different patients will need different approaches, as persons with unhealthy alcohol use do not have a homogeneous group of problems. Any underlying or accompanying problems should be identified and addressed, even if the causal relationship is unclear. The treatment plan should be based on the most effective intervention for the patient, not just on the kind of treatment typically provided by the agency. The patient should be informed about the range of options for intervention available locally and assisted to make a reasoned decision as to which intervention is most suited to his or her needs (see 'Treatment planning' below).

TO ENGAGE THE PATIENT IN THE ASSESSMENT AND TREATMENT PROCESS

This is an opportunity for the clinician and patient to develop rapport. If the clinician shows the patient empathy and courtesy and provides a sense of hope and optimism, the patient is less likely to take a defensive stance in the interview, and resist change. Feedback from the clinician can encourage the patient to appraise their situation from a new perspective. Assessment can be defined as the beginning of therapy; it often reveals, for the first time, the full extent of the drinking-related problems to both patient and clinician.

TO MOTIVATE THE PATIENT TO CHANGE DRINKING PATTERNS AND RELATED BEHAVIOUR

The patient's perception of a gap between their goals and their present state may improve motivation for change. It is important to highlight the patient's perception of the opportunity for change; this requires the clinician to have a positive and realistic approach and a sympathetic understanding of the implications of change for the person who drinks and their family.

	RECOMMENDATION	GRADE OF RECOMMENDATION
4.12	Assessment should include patient interview, physical examination (when medical practitioners are available), clinical investigations, and collateral history. It may include structured questionnaires. The length of the assessment should be balanced against the need to keep the patient in treatment and address immediate concerns.	C

DIAGNOSTIC INTERVIEWS

The initial assessment should ideally take the form of an open-ended, semi-structured interview where the patient and the clinician compile a narrative history, using appropriate questionnaires if desired (see Table 4.1). This has the advantage of clinician involvement that is personal and responsive to the person who drinks, rather than mechanical and impersonal. Yet, it should maintain a purposeful structure so as to avoid a vague, directionless discussion of their history or rumination on a few aspects. Standardised questionnaires are not often used at this stage, but in selected cases a number of validated instruments may prove useful.

TABLE 4.1: Matters to be covered in a comprehensive assessment

Presentation	<ul style="list-style-type: none"> • Presenting problems • Role of drinking/drug use in presenting problems • Motivation for presentation • Other concerns
Medical and psychiatric comorbidity	<ul style="list-style-type: none"> • Physical health problems (including liver, gastro-intestinal, trauma, cardiovascular, neurological, cognitive, endocrine) • Mental health problems (depression, anxiety, psychosis, suicide risk)
Social circumstances	<ul style="list-style-type: none"> • Social functioning (including relationship, employment, financial, housing, legal)
Examination (by suitably trained health professionals)	<ul style="list-style-type: none"> • Physical examination (general examination, signs of intoxication or withdrawal, nutritional assessment, neurological function, gastrointestinal, cardiovascular) • Mental state examination (signs of intoxication or withdrawal, cognitive function, mood, motivation and insight)

Motivation and treatment goals

- Goals of treatment (abstinence versus reduced drinking, other health concerns)
- Involvement of other health and/or welfare professionals
- Clinical risks and risk management plan (harm to self/others, serious physical or mental illness, driving, child protection, domestic violence, occupational concerns)
- Treatment plan (need for brief interventions, controlled drinking strategies, detoxification, relapse prevention strategies, management of comorbidities).

Note: Comprehensive assessment may require more than one consultation, and involve gathering of additional information from clinical investigations and collateral history.

A complete assessment should evolve over two or more sessions as an ongoing part of the treatment. It should not be viewed as something that must be completed at the first visit and not revisited. Specific areas that need assessment include:

- level and history of alcohol consumption
- dependence
- alcohol-related harms, including
 - physical status
 - psychological and psychiatric status
- cognitive functioning
- motivation

While each area needs to be covered to ensure a comprehensive assessment, not every patient will need to be assessed extensively on each. In some cases, such a detailed assessment is unnecessary, as the status of the patient will be obvious. In other cases the information provided will allow the clinician to carry out a careful assessment of the important aspects.

The structure of clinical assessments differs between medical, psychological, nursing and other health professionals for a range of reasons and may also need to be adapted to suit the environment in which it is being conducted. Structured diagnostic interviews are available but, due to their length, are often too cumbersome for clinical practice; their use is generally limited to research and forensic settings and in training (see also Review of the Evidence).

ASSESSING LEVEL AND HISTORY OF ALCOHOL CONSUMPTION

The assessment should gather information about the patient's drinking history, including how the drinking pattern evolved, fluctuated and/or progressed over time. A quantitative alcohol history should be recorded in every case. This comprises the:

- daily average consumption (grams per day or standard drinks per day) of alcohol; and
- number of drinking days per week (or month).

A number of studies have shown that in general, reproducible and relatively accurate information can be obtained from a well-taken alcohol history. Based on cumulative population self-reporting, overall alcohol use is frequently under-reported, but interviewing style can influence the accuracy of self-reporting.

Adopt a non-judgmental tone in asking about alcohol use. It is useful for the clinician to use the 'top-down approach', suggesting a level of drinking that is higher than expected so the patient is more likely to be comfortable admitting the real level of drinking by bringing the estimation down to the correct level.

Language should be carefully interpreted; the phrase 'a drink after work' may mean any number of drinks per drinking day, and any frequency of drinking from once a fortnight to every day. The definition of a standard drink should be clarified in every case using an appropriate visual aid such as that shown in Appendix.

The assessment should include the patient's reconstruction of a typical drinking day and week, from the time of waking through all the day's activities. For example, the clinician might ask at what time the first drink is taken, where and with whom. The time spent drinking or the money spent on alcohol can be compared with the patient's estimate of the amount of alcohol consumed to test the accuracy of that estimation. Consumption can be linked to particular events, behaviours and times. An assessment of a typical day also gives information about the antecedents and consequences of drinking. This information can be incorporated into advice about relapse prevention. The clinician needs to distinguish between daily drinking and binge drinking where the weekly or monthly consumption is concentrated over several days and the patient is abstinent or drinks lightly at other times. The use of drink diaries or calendars may help clarify the patterns.

Several structured methods are available to perform this assessment, although they are not routinely used in clinical practice (for example, the quantity–frequency index and the retrospective diary are both reliable ways of identifying high risk levels and patterns of consumption. The 'timeline follow-back' method helps to obtain an accurate, retrospective account of alcohol consumption over a particular period, typically 3 months. These are time consuming but useful approaches to gaining detailed clinical information.

Other drug use, including smoking, use of sedative medications and illicit drugs, should also be assessed.

ASSESSING DEPENDENCE

When assessing the patient's dependence on alcohol and the related harms that may be experienced, clinicians should examine:

- the severity of dependence
- the consequences of drinking
- previous experiences of abstinence and treatment.

The measurement of the degree to which a person is dependent upon alcohol allows the clinician to plan treatment goals and interventions. The severity of dependence provides an indication of the risk of withdrawal and might also provide some initial indication of how intense the treatment program needs to be. For example, a person who is more alcohol dependent may be less able to achieve controlled drinking. In addition, medications for relapse-prevention ("alcohol pharmacotherapies") are aimed at those with alcohol dependence and have been trialled on such patients; they may be inappropriate (and are likely to be untested) on those with non-dependent unhealthy alcohol use.

FIGURE 4.3: Diagnostic Criteria for Substance Dependence and Substance Use Disorder in DSM5 and ICD-11

DSM5 ALCOHOL USE DISORDER

A problematic pattern of alcohol use leading to clinically significant impairment or distress, as manifested by at least two of the following, occurring within a 12-month period:

ICD-11 ALCOHOL DEPENDENCE

A disorder of regulation of alcohol use arising from repeated or continuous use of alcohol. The characteristic feature is a strong internal drive to use alcohol. The diagnosis requires two or more of the two central features to be evident over a period of at least 12 months, but the diagnosis may be made if alcohol use is continuous for at least one month:

1. CRAVING

DSM5 ALCOHOL USE DISORDER

Craving, or a strong desire or urge to use alcohol.

ICD-11 ALCOHOL DEPENDENCE

1 Impaired control over alcohol use - in terms of the onset, level, circumstances or termination of use, often but not necessarily accompanied by a subjective sensation of urge or craving to use alcohol.

2. LOSS OF CONTROL

DSM5 ALCOHOL USE DISORDER

There is a **persistent desire** or unsuccessful efforts to cut down or control alcohol use.

3. PRE-OCCUPATION

DSM5 ALCOHOL USE DISORDER

Alcohol is often taken in **larger amounts** or over a longer period than was intended.

4. NOT MEETING OBLIGATIONS

DSM5 ALCOHOL USE DISORDER

Recurrent alcohol use resulting in a **failure to fulfill** major role obligations at work, school, or home.

ICD-11 ALCOHOL DEPENDENCE

2 Alcohol use becomes an **increasing priority** in life such that its use takes precedence over other interests or enjoyments, daily activities, responsibilities, or health or personal care. Alcohol use takes an increasingly central role in the person's life and relegates other areas of life to the periphery, and it often continues despite the occurrence of problems.

5. TIME SPENT

DSM5 ALCOHOL USE DISORDER

A **great deal of time** is spent in activities necessary to obtain alcohol, use alcohol, or recover from its effects.

6. USE DESPITE HEALTH HARMS

DSM5 ALCOHOL USE DISORDER

Alcohol use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by alcohol.

7. TOLERANCE

DSM5 ALCOHOL USE DISORDER

Tolerance, as defined by either of the following:

- a. A need for markedly increased amounts of alcohol to achieve intoxication or desired effect.
- b. A markedly diminished effect with continued use of the same amount of alcohol.

ICD-11 ALCOHOL DEPENDENCE

- 3 Physiological features (indicative of neuroadaptation to alcohol) as manifested by (i) **tolerance**, (ii) **withdrawal** symptoms following cessation or reduction in use of alcohol, or (iii) repeated use of alcohol (or a pharmacologically similar substance) to prevent or alleviate withdrawal symptoms. Withdrawal symptoms must be characteristic for the withdrawal syndrome for alcohol and must not simply reflect a hangover effect.

8. WITHDRAWAL

DSM5 ALCOHOL USE DISORDER

Withdrawal, as manifested by either of the following:

- a. The characteristic withdrawal syndrome for alcohol.
- b. Alcohol (or a closely related substance) is taken to relieve or avoid withdrawal symptoms.

9. USE DESPITE SOCIAL HARMS

DSM5 ALCOHOL USE DISORDER

Continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of alcohol.

ICD-11 ALCOHOL DEPENDENCE

To some extent subsumed in criterion 2

10. PHYSICAL RISKS

DSM5 ALCOHOL USE DISORDER

Recurrent alcohol use in situations in which it is physically hazardous.

ICD-11 ALCOHOL DEPENDENCE

No equivalent criterion

11. SALIENCE

DSM5 ALCOHOL USE DISORDER

Important social, occupational, or recreational activities are given up or reduced because of alcohol use.

ICD-11 ALCOHOL DEPENDENCE

To some extent subsumed in criterion 2

DSM is the Diagnostic and Statistical Manual by the American Psychiatric Association (APA). ICD is the International Statistical Classification of Diseases by the World Health Organisation (WHO). Note: Words in Bold indicate the key points of each criterion. In DSM-5 the diagnosis of substance use disorder is further classified according to severity: Presence of 2-3 symptoms: mild; presence of 4-5 symptoms: moderate; presence of 6 or more symptoms: severe.

Explore the patient's experiences of dependence, tolerance and withdrawal by asking the patient to describe the last two or three occasions on which they reached intoxication and the last two or three occasions when they did not become intoxicated. (Assessment of withdrawal is discussed in [Chapter 8](#)).

Three of the several validated questionnaires that measure alcohol dependence are included in the [Appendix](#), as are the shortened version of the Severity of Alcohol Dependence Questionnaire (SADQ-C), the Short Alcohol Dependence Data (SADD) questionnaire, the Severity of Dependence Scale (SDS) and the Alcohol Dependence Scale (ADS) (see also Review of the Evidence). These questionnaires can either serve as a checklist to help organise the clinician's questions or the patient can complete them during assessment.

PREVIOUS EXPERIENCES OF ABSTINENCE AND TREATMENT

It is important to characterise previous periods of abstinence or reduced alcohol use, whether they were voluntary or imposed, whether they were self-initiated or the result of treatment, whether the patient felt better as a consequence, and how those periods ended.

In parallel, it is important to understand previous treatment exposure as it helps plan future treatment, both in terms of what worked and what did not, as well as to clarify the patient's experiences and tolerances.

ALCOHOL-RELATED HARM

The clinician should assess the range of problems the patient has encountered as a result of their drinking. In addition to physical and mental health, the patient's drinking may have led to family problems, detrimentally affected work performance, social relations or financial stability. Alcohol-related offences such as drink-driving are also relevant. A specific crisis in one of these areas may have been the impetus for seeking help, and this should be explored.

Discussion of the ‘less good things’ about drinking can enhance the patient’s readiness for change (see **Chapter 6** Brief interventions – In person). Alcohol harms are usually assessed using unstructured clinical interviewing. The Alcohol Problems Questionnaire (APQ) is a reliable instrument that covers eight domains – friends, money, police, physical, affective, marital, children and work.

	RECOMMENDATION	GRADE OF RECOMMENDATION
4.13	Assessment of the patient’s alcohol-related problems, diagnosis and severity of dependence should be recorded.	GPP

ASSESSING PHYSICAL WELLBEING

According to the professional background and skills of the health professional, known or suspected alcohol-related physical disorders should be assessed. This will involve:

- Eliciting a history of medical disorders with known relation to alcohol
- noting medical disorders where alcohol may have been implicated
- identifying accidents and other causes of trauma
- current physical symptoms
- medication taken for physical disorders
- other previous or current health problems related to drinking.

If any active medical issues are evident, it is appropriate to encourage the patient to see their general or other medical practitioner.

Medical practitioners should conduct a thorough medical assessment, including history, examination and clinical investigations. Physical examination should include assessment for signs of intoxication or withdrawal, signs of liver disease, vital signs (temperature, blood pressure, pulse) and screen for organic brain damage.

The value of telling the patient the results of their medical examination and any clinical investigations cannot be over-emphasised. Discussion about the implications of abnormal liver function tests has been shown to reduce subsequent alcohol consumption. The advantages of feedback are less clear when medical tests show normal results. However, the assessment should allow patients to accurately consider the degree of their alcohol-related problems and normal medical results should not detract from this endeavour. Normal results can be examined within the context of a clinical interaction.

	RECOMMENDATION	GRADE OF RECOMMENDATION
4.14	Assessment for alcohol-related physical health problems should be routinely conducted. A medical practitioner should assess patients at risk of physical health problems.	GPP

ASSESSING MENTAL HEALTH DISORDERS

Psychological problems and psychiatric comorbidity – most commonly depression and anxiety – are more prevalent among alcohol-dependent people than the general population. It is essential to discover if psychiatric comorbidity and/or psychological problems are present in alcohol-dependent patients. Such problems can include:

- anxiety, depression, post-traumatic stress disorder, psychosis
- suicidal ideations and past history of suicide attempts
- childhood issues, including sexual and physical abuse.

The presence of psychological problems requires mental-state examination by suitably trained clinicians and clinical assessment of mental symptoms. A targeted risk assessment of the possibility of harm to self and/or others, including children, should be performed. It is important that all clinicians in this area develop basic mental health skills and links with other relevant services to help manage these disorders.

Patients need to be reassessed at regular intervals, for example after 3 or 4 weeks of treatment to reduce alcohol consumption, and a final psychiatric diagnosis will be delayed until this time. It is likely that many mental symptoms are reactions to the chaos and disarray in the patient's life that are associated with the drinking problem, or to the neurological effects of alcohol. Some of these symptoms resolve, without formal therapy, when the drinking ceases or decreases. The drinking problem may also be causing the anxiety, rather than the reverse, but serious anxiety disorders may be present and may precipitate relapse.

A high percentage of alcohol-dependent women in treatment have had some experience of physical and/or sexual abuse. Questions about sexual abuse should be framed in a non-threatening way so the patient can choose whether to discuss the issue. Women with a history of child sexual abuse who are pressured to discuss the issue with non-specialist counsellors may endure negative treatment outcomes. Based on these trends, and drawing on clinical expertise, it has been argued that if child sexual abuse is an issue, the patient should be offered referral for specialist intervention. Many patients will not wish to pursue the issue.

Although caution should be exercised in addressing child sexual abuse, clinicians need to discuss it without seeming tentative or fearful. In some jurisdictions, training in dealing with child sexual abuse is now available for alcohol and drug counsellors. A number of jurisdictions have established services for treating victims of child sexual abuse but resources are limited.

A variety of scales are used in clinical and research settings for assessing mental health conditions (see Table 4.2). They are variously used according to clinician preference, treatment setting and patient population. For example, the Kessler 10 Symptom Scale is reasonably widely used in the public sector. In general, these instruments have not been validated in alcohol-dependent populations.

TABLE 4.2: Relevant mental health assessment scales

INSTRUMENT	DESCRIPTION
Beck Depression Inventory (BDI)	Measures depression and its symptoms
Beck Hopelessness Scale	Measures hopelessness and negative views about the future, and is an indicator of suicide attempts.
Depression, Anxiety and Stress Scale (DASS) *	Measures symptoms of depression, anxiety and stress. Australian population data have been published.
General Health Questionnaire (GHQ)	Designed as a screening instrument to identify likely non-psychotic psychiatric cases in general health settings.
Kessler-10 Symptom Scale *	A scale of psychological distress, suitable for use as an outcome measure in people with anxiety and depressive disorders. It has become the standard scale for use by Australian general practitioners and mental health workers.
Modified PTSD Symptom Scale *	A brief (17-item) measure of post-traumatic stress disorder symptoms.
Short Form 12 (SF-12) *	Assesses possible limitations in both physical and mental health, with age and gender matched population norms.
Social Anxiety Interaction Scale and Social Phobia Scale *	Useful for assessing social phobia.
Spielberger State Trait Anxiety Scale	Measures current anxiety (state anxiety) and a more enduring personality characteristic (trait anxiety).

Note: *all in the public domain, the others need to be purchased.

	RECOMMENDATION	GRADE OF RECOMMENDATION
4.15	Assessment for mental health problems, such as anxiety, depressive symptoms and suicidal risk, should be routine, including mental state examination. Referral for further specialist assessment may be needed if significant psychiatric problems are suspected.	GPP

ASSESSING MOTIVATION

Motivation to change is an important predictor of treatment outcome, so it is important to assess the motivation level of the person who is drinking. Treatment planning should take motivational state into account so as to maintain and enhance motivation to control excessive drinking.

The Transtheoretical Model of Change is the most widely applied model of motivation for change. It conceptualises readings for change as involving the following stages:

- A pre-contemplative stage, during which the person is not considering changing
- A contemplative stage, during which the person becomes more aware of the benefits of changing, but is ambivalent about changing and does not act
- A preparation stage, during which the person formulates plans for change, may take steps to monitor their problem behaviour and initiate behaviour change
- An action stage, during which the person will engage in active attempts to moderate or to cease the behaviour
- A maintenance stage, which occurs after the behaviour has been moderated or stopped but during which the person could relapse and return to an earlier stage
- A relapse stage, when the individual resumes or even increases the intensity or frequency of the previous behaviour
- If there is a low level of motivation to change, motivational intervention may be helpful and intensive intervention is likely to be unhelpful (see [Chapter 9](#) Psychosocial interventions for alcohol use disorder).

DIRECT QUESTIONING

Perhaps the simplest way to assess readiness to change of a person who drinks is through direct questioning during the assessment interview. This should be done after risky alcohol consumption has been discussed, and the patient has received feedback on their level of drinking. Questions should avoid seeming judgmental or adversarial. Some questions that might prove useful are:

- ‘How interested are you in changing your drinking now?’
- ‘Do you feel that you ought to stop drinking’, or ‘Do you want to stop drinking now?’
- ‘What would you be prepared to do to solve this drinking problem?’
- ‘How confident are you that you can achieve this?’

The patient may be encouraged to explore the various treatment options from the perspective of motivation to participate. Alternatively, the patient may simply be asked: ‘How do you feel about your drinking at the moment?’ Responses may vary from:

- Pre-contemplative responses such as, ‘I enjoy drinking’, ‘I’m not interested in stopping drinking’.

- Contemplative responses such as, ‘I’m thinking about stopping’, ‘I’m not sure if I’m ready at the moment’.
- Action-oriented responses such as, ‘I want to stop now’, ‘I may need some help’, or ‘The disadvantages of drinking outweigh the benefits for me’.

Several questionnaires have been validated to assess the readiness to change of a person who drinks; they are the University of Rhode Island Change Assessment (URICA) scale, the Readiness to Change Questionnaire (RTCQ) and the 32-item Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES). These are generally reserved for research use (see [Appendix](#)).

It would be counterproductive to over-emphasise the assessment of motivation, as the expressed level of motivation does not predict outcome in every case. The stages of motivation are not mutually exclusive and may fluctuate quickly. There is little evidence of sequential movement through discrete stages. Many patients express highly selective motivation; for example, they may want to stop drinking, but not see a clinician.

Finally, ambivalence is a key characteristic of the risky drinking population, characterised by simultaneously being motivated in apparently opposing directions. For example, a patient may say that he still enjoys drinking but acknowledges he has been advised to abstain. Hence, it is not surprising that there is evidence that greater expressed readiness to change is not always predictive of reduced alcohol consumption.

	RECOMMENDATION	GRADE OF RECOMMENDATION
4.16	Motivation to change should be assessed through direct questioning as it can inform engagement strategy, although expressed motivation has only a moderate impact on treatment outcome.	C

ASSESSING COGNITIVE FUNCTIONING

Health professionals must be aware of the possibility of alcohol-related brain damage and be watchful for signs of it in the clinical interview. Since there is a high prevalence of cognitive dysfunction among people with alcohol problems (see Review of the Evidence), drug and alcohol workers should screen for deficits in cognitive function (see [Chapter 19](#) – Cognitively impaired patients).

Two forms of cognitive impairment occur more commonly in persons with unhealthy alcohol use than any other. They are:

- Impairment in recent memory (“short-term memory”), formally termed amnesic disorder; and
- Frontal lobe (executive) dysfunction.

There is a range of severity of both these impairments. Amnestic disorder may range from mild impairment (which may be fully reversible) to the most severe which is termed Wernicke–Korsakoff’s syndrome, and typically is irreversible. Amnestic disorder has a high prevalence in alcohol dependent people. It is caused by thiamine (Vitamin B1) deficiency in combination with the neurotoxic effects of alcohol and may be fatal (see [Chapter 8](#) Alcohol withdrawal management).

Other medical causes of cognitive impairment include:

- cerebrovascular disease
- dementia
- Alzheimer’s disease
- chronic subdural haematoma
- cerebral neoplasm
- syphilis
- HIV/AIDS.

If cognitive impairment is suspected, an appropriate medical practitioner should assess the patient. In most cases, if abstinence is achieved, cognitive function improves considerably over the subsequent 2 to 4 weeks. Formal cognitive assessment should preferably be deferred until four weeks have elapsed but a provisional assessment is valuable even immediately after the detoxification period.

SCREENING INSTRUMENTS FOR COGNITIVE IMPAIRMENT

The most widely used screening approach in clinical practice is a clinical assessment for orientation, short- and long-term memory as part of the mental state examination.

Screening and brief assessment instruments for cognitive function are available. The most suitable are those that include assessment of frontal lobe (executive) dysfunction such as the Montreal Cognitive Assessment (MOCA) and the Addenbrookes Cognitive Evaluation (ACE, Version III). The Mini-mental State Examination (MMSE) should be avoided as it does not adequately assess frontal lobe functions and can give inflated estimates of cognitive performance. The MMSE is copyright protected.

The Clock Drawing Test (see [Appendix](#)) is another widely used screening test for cognitive dysfunction that can be recommended. As with all such tests, it is best to allow a period of abstinence from alcohol to achieve optimal performance, and caution needs to be applied to ensure testing is not conducted while the patient is intoxicated or still undergoing detoxification, or while affected by benzodiazepines or other sedatives. As well, the clinician must be aware of other factors, such as concomitant anxiety or depression, when interpreting tests of cognitive dysfunction.

Caution needs to be applied to ensure that any testing is not conducted while the patient is intoxicated or actively undergoing detoxification.

RECOMMENDATION	GRADE OF RECOMMENDATION
4.17	Screening for cognitive dysfunction should be conducted if the health practitioner suspects the patient has cognitive impairment. Referral to a clinical psychologist or neuropsychologist for further testing may be appropriate. The need for formal cognitive assessment is generally reassessed after the patient has achieved several weeks of abstinence.

GPP

GATHERING COLLATERAL INFORMATION

Many patients may be reluctant to acknowledge their excessive alcohol use and its consequences because of the stigma attached to such behaviour. Collateral interviews can, therefore, play a central role where the patient does not self-report their problem with alcohol. Collateral information is particularly needed where a discrepancy appears likely; for example, a patient may say he has reduced his drinking but his liver tests remain elevated. The patient’s spouse or other close family members are often aware of drinking and may be more aware of alcohol-related problems than the patient. Work colleagues may provide evidence of impairment or intoxication while on duty. Reports from other clinicians or hospital records may also be revealing.

Significant barriers limit access to collateral reports. Privacy legislation limits the distribution of personal information without consent. It may also be unethical to pursue such enquiries without patient consent. Even if legally, ethically and clinically appropriate, the patient may object to such enquiries. In such cases, the therapeutic relationship may be disrupted.

Many people freely acknowledge their use of alcohol and its consequences; in which case, there may be little to be gained from interviewing others. Indeed, unnecessary collateral interviews in this setting can undermine an evolving therapeutic relationship.

Collateral information may also include information recorded elsewhere, for example in the referral letter, discharge summary or in notes from earlier presentations to the general practice or hospital. Such sources are often a valuable source of diagnostic information.

RECOMMENDATION	GRADE OF RECOMMENDATION
4.18	Collateral reports should be incorporated in the assessment where inconsistencies appear likely, with the patient’s permission where possible, and subject to legal and ethical boundaries.

GPP

FAMILY FACTORS

Patients should be encouraged to explore relevant family issues during assessment. Such issues may include relationships with their spouse or partner, their parents, their children, and other significant people in their lives, and attributions about the effects of the patient's drinking.

Domestic violence and sexual abuse, either as perpetrator or victim, are common and serious problems associated with alcohol and other substance use. Because of the sensitivity of these issues, it may not be appropriate to raise them in the first contact session unless the clinician believes there may be a current safety risk. It is important to determine whether the patient wishes to discuss these issues. Specialist assessment and intervention is typically needed.

Enquire into the family's role in convincing the patient to seek help. A patient who is self-referred may be responding to family pressure and this is important information when assessing the patient's motivations and ambivalence. When it is possible the clinician should interview the spouse and/or family members. The interview should provide family members with the opportunity to discuss:

- Their observations about the behaviour of the person who drinks.
- The problems they have had in coping with the drinking behaviour. The clinician will need to evaluate the levels of distress within the family, feelings of isolation and confusion, specific crises preceding help seeking, and who feels responsible for solving the family problems.
- Expectations family members have about treatment. If the spouse or partner is going to be involved in the alcohol treatment, the clinician needs to assess whether the couple has adequate communication to enable mutual problem solving (see [Chapter 9](#) Psychosocial interventions for alcohol use disorder).
- What happens before and after drinking episodes, so particular dynamics relevant to the drinking can be identified. If the spouse's role in therapy is aimed at selectively reinforcing certain behaviours in their partner, the clinician should be sure that does not threaten the spouse's wellbeing by reinforcing the notion that she or he is responsible for the partner's drinking.

The family interview is an opportunity for family members to ask questions and to voice their concerns. It is also a good time to help the family put the drinking problem into perspective. For instance, family members should be advised that achieving abstinence or moderation does not necessarily resolve family problems, and that their personal health and wellbeing does not necessarily depend upon resolution of their family members problem with drinking. The attitude of the clinician should permit the partner to help themselves rather than feeling obligated to help the family member.

While this kind of complex information is best obtained by clinical interview, the Alcohol Problems Questionnaire has a subscale assessing family problems and one assessing marital/ relationship problems (see [Appendix](#)).

CHILD PROTECTION

Clinicians should determine if the patient cares for any children under the age of 16. A child or young person can be at risk of harm because:

- their basic physical or psychological needs are not being met, or are at risk of not being met
- the parents or caregivers have not arranged and are unable or unwilling to arrange for the child or young person to receive necessary medical care
- they have been, or are at risk of being physically or sexually abused or ill-treated
- they are living in a household where there have been incidents of domestic violence and, as a consequence, the child or young person is at risk of serious physical or psychological harm, and/or
- a parent or caregiver has behaved in such a way towards the child or young person that the child or young person has suffered or is at risk of suffering serious psychological harm.

In many jurisdictions it is mandatory for police, teachers, health workers and other people who work with children to notify relevant authorities if they believe a child is being abused or neglected. Clinicians should act according to jurisdictional guidelines if they are concerned about a child's welfare.

	RECOMMENDATION	GRADE OF RECOMMENDATION
4.19	The social support for the patient should be assessed and this information should be incorporated into the management plan.	GPP
4.20	Health practitioners should determine if the patient cares for any children under the age of 16, and act according to jurisdictional guidelines if there are any concerns about child welfare.	GPP

ASSESSING RISK

Full risk assessment involves assessment of a number of aspects of safety of the patient or others, including suicide risk, violence risk, physical safety (for example, self-care, risk of accidental injury), child care, driving and workplace safety. Detailed considerations of full risk assessment are beyond the scope of these guidelines. In many cases, intervention to help the patient abstain from alcohol will substantially reduce many risks. However, where concern about safety of the patient or others remains, consultation should be obtained from the relevant specialist or agency.

While suicide deaths are rare, suicidal ideation and attempts are less rare. Data from the United States indicates that 38% of adults who go on to commit suicide have had contact with a primary care provider within the preceding month. A meta-analysis of existing data determined that screening in primary care may be able to identify adults at increased risk of suicide. It is, therefore, desirable to screen for suicide as part of standard risk assessment. Clinical assessment regarding

thoughts of self-harm is valuable with psychiatric referral where responses are troubling. A large number of standardised screeners exist for this purpose, including Adult Suicidal Ideation Questionnaire, Beck Scale for Suicide Ideation, Hamilton Rating Scale for Depression, and Positive and Negative Suicide Ideation Inventory (See [Appendix](#)). These tests have been tested in various populations and have favourable psychometric characteristics.

	RECOMMENDATION	GRADE OF RECOMMENDATION
4.21	In the event of suspected or continuing concerns over safety of the patient or others, specialist consultation is recommended.	D

TREATMENT PLANNING

When developing a treatment care plan it is important to identify suitable interventions, set goals, and plan long-term follow-up aftercare to prevent relapse.

IDENTIFYING SUITABLE INTERVENTIONS AND DEVELOPING TREATMENT CARE PLANS

Treatment is only one factor in promoting change in individuals but it can help patients change by teaching them to act and think differently about drinking. Sometimes the act of seeking help from a health professional can be an important first step for people to start changing their drinking patterns.

The cumulative evidence from large-scale treatment trials, such as Project MATCH (Project MATCH Research Group 1993) and the United Kingdom Alcohol Treatment Trial (UKATT Research Team 2005) suggests that:

- there is a range of effective interventions and treatment approaches for alcohol disorders
- no single intervention is effective for all people with alcohol problems
- there may be treatments that reduce the likelihood of finding large differential effects between empirically supported interventions.
- These treatment trials provide a framework for clinical responses to people with alcohol-related problems.

ASSESSMENT AND FEEDBACK

A comprehensive assessment is fundamental in treatment planning (see 'Comprehensive clinical assessment' above).

Sharing assessment information with patients in plain, non-judgemental language should be standard practice in a collaborative and motivationally-oriented approach to treatment, and can increase the patient's motivation to change as well as his understanding of and engagement in the treatment.

4.22 Assessment should lead to a clear, mutually acceptable comprehensive treatment plan that structures specific interventions to meet the patient's needs.

D

ENGAGING THE PATIENT IN TREATMENT

Patient engagement may be viewed in terms of intensity and duration of treatment participation. High levels of engagement are predictive of positive treatment outcomes but are contingent upon patient, clinician and clinic characteristics, namely:

- Patient characteristics include pre-treatment motivation, severity of disorder, previous treatment experiences, strength of therapeutic relationship, and perception of helpfulness of the treatment services.
- Clinician characteristics include degree of empathy, therapeutic relationship, adequate time and interest, and counselling skills. Basic counselling 'micro skills' including warmth and optimism, and strong interpersonal skills are associated with better retention in treatment and indirectly with better treatment outcomes.
- Clinic characteristics include removal of practical access barriers such as transportation, fees, hours, physical surroundings, and perceptions about other patients of the service.

Treatment adherence and completion are prominent issues in alcohol and other drug treatment and the factors that improve it are not yet well understood. A focus in early interactions with patients should be on maximising engagement with the professional and the service and fostering a sense of collaboration. Central to provision of any intervention is a strong bond and therapeutic alliance between patient and clinician.

In addition to identifying clinical disorders and effective interventions, negotiation of treatment goals requires clarification of the patient's insight, values and expectation. Evidence shows that providing the patient with a choice of treatment options improves treatment retention.

GOAL SETTING: ABSTINENCE, MODERATION AND REDUCED DRINKING

Identifying and agreeing upon treatment goals regarding alcohol consumption is an important step for many patients.

Patients with no or low levels of dependence who are not experiencing significant or irreversible alcohol-related harms may be able to achieve a goal of moderation. Consumption within NHMRC guidelines can be recommended, as it is associated with less than 1% risk of serious alcohol-related harms. Patients that self-select abstinence as the goal of treatment show more favourable outcomes at follow-up than those that select moderation and no specific goal. Abstinence should, therefore, be suggested as an outcome for patients with no set goal for treatment.

The most realistic drinking goal for patients with severe alcohol dependence and/or those presenting with associated problems (such as organ damage, cognitive impairment and co-existing mental health problems) is likely to be abstinence. For many such patients, achieving abstinence will be accompanied by the risk of alcohol withdrawal syndrome. If this is the case, it should be managed before longer-term abstinence or reduced drinking can be achieved (see [Chapter 8](#) Alcohol withdrawal management).

In clinical practice, patients often present with firm ideas about their drinking goal. They may wish to drink at levels that can continue to cause harm, or may not be realistically sustained. Several options can be considered when a patient's expressed preference for moderation is at odds with clinician advice. When serious consequences from continued alcohol use are highly likely, options include:

- declining assistance and explaining that it would be unethical for you to support such a goal; this approach is unlikely to engage or retain the patient in treatment
- accepting the goal provisionally and for a stipulated period
- negotiating a period of abstinence (for example, 1 to 3 months) to allow the patient to get through withdrawal (if relevant), provide some recovery from the effects of alcohol, and provide time to acquire new skills, such as controlled drinking strategies
- agreeing to gradually reduce drinking to achieve abstinence, setting realistic, intermediate goals and monitoring the number of drinks consumed daily
- negotiating a period of trial moderation, include daily drink monitoring and controlled drinking strategies (coping skills training).

Ongoing review and monitoring of drinking against identified goals is central to successful intervention. If the goals are too difficult to achieve, abstinence may seem a more reasonable goal; this should be clearly identified and agreed upon with the patient from the outset.

Some interventions require protracted but important negotiations for goal setting. For strategies to manage patients who continue to drink at harmful levels, see [Chapters 9](#) and [10](#).

	RECOMMENDATION	GRADE OF RECOMMENDATION
4.23	Patients should be involved in goal setting and treatment planning.	A
4.24	Sustained abstinence is the optimum outcome for most patients with alcohol dependence. For those with lesser degrees of unhealthy alcohol use, reduced consumption may be feasible.	C

CHAPTER 5

MODELS OF CARE

Author | Kerryn Butler

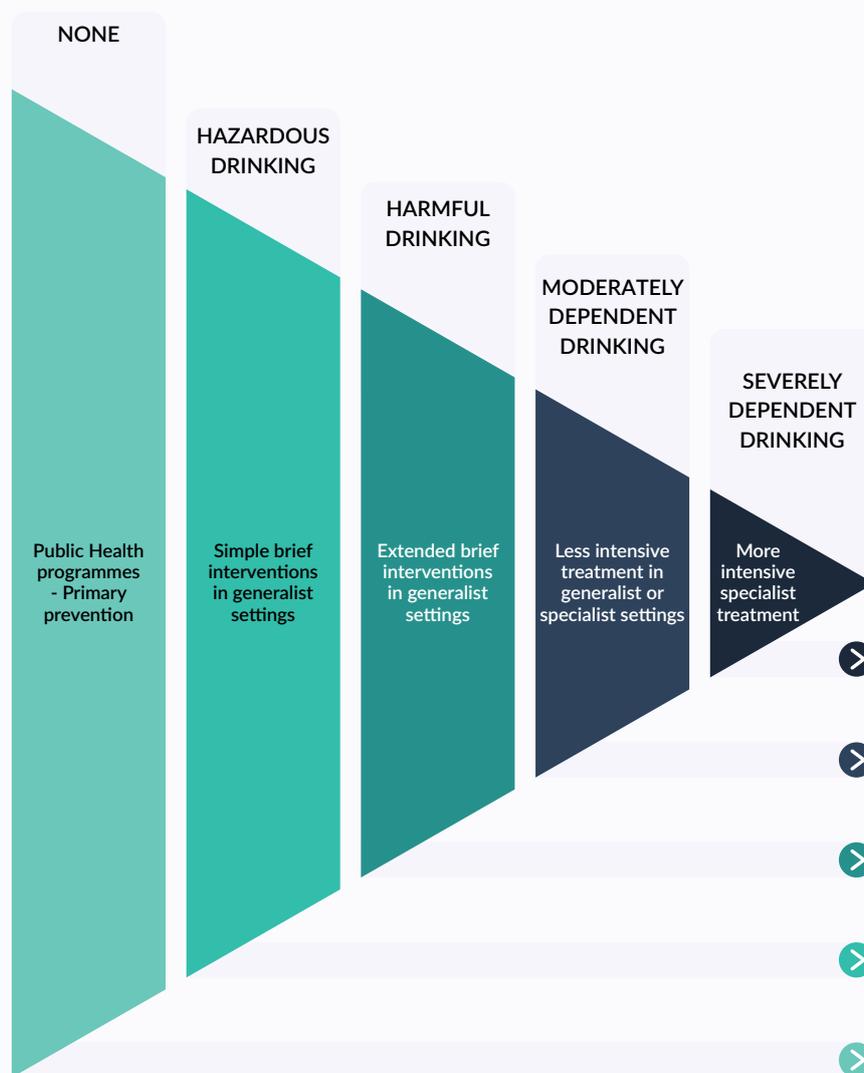
This chapter provides a brief overview of the approaches to the coordination and delivery of care for the treatment of alcohol use disorders.

MODELS OF CARE

Alcohol services are provided along a spectrum from simple, brief interventions all the way through to intensive specialist treatment services. Examples of these services can be found in the community, primary care, and specialist care settings. Availability and provision of these services are variable, and in some cases, not well integrated. Therefore, access to alcohol services and the extent to which they meet the needs of people with alcohol problems vary across Australia.

It can be useful to visualise this spectrum of responses to alcohol problems in the following way.

FIGURE 5.1: A spectrum of responses to alcohol problems



Source: Raistrick et al., 2006. Review of the effectiveness of treatment for alcohol problems. London: National Treatment Agency for Substance Misuse.

PRINCIPLES OF CARE

PATIENT-CENTRED CARE

The principles of patient-centred care and shared decision making are now understood to be essential for effective treatment for alcohol problems. This entails providing care that is respectful of, and responsive to, individual patient preferences, needs and values, and ensuring that patient values guide all clinical decisions. The clinical ‘encounter’ is often the most opportune time for patients to become engaged in their own healthcare and presents an opportunity to develop a collaborative relationship on which to base shared-decision making. The term patient-centred care is used to emphasise the importance of improving understanding of the experience of illness and addressing the patient’s need. This endeavour is increasingly more challenging when health delivery systems are complex and fragmented. This approach uses the expertise of the clinician in appropriately explaining to the patient the features of the illness, the impact the condition may have, and the benefits and risks associated with various treatment approaches. Providing a supportive environment within which the patient can explore their values and preferences to treatment options (or indeed the option of no treatment) places value on the therapeutic relationship between clinician and patient. The treatment plan, goals including time frame are all individualised according the patient needs, to the extent possible. When impaired decision-making is a feature of the presentation, consultation with the patient’s family, caregivers, or other support people can be an effective substitution.

INTEGRATED CARE

Alcohol problems characteristically are associated with more than one health or social concern creating a need for diverse supports. It may be difficult or costly to co-ordinate these leading to incomplete treatment and poor clinical outcomes. Integrated care is an approach that aims to deliver seamless care within the health system across settings and providers. It places patients at the centre of care by providing wrap-around services for patients with complex needs. Successful integration of care is responsive to the needs of patients and provides patients more choice and greater opportunities to engage with the health system. Integrated care is best seen as a continuum rather than an absolute. Related services may be co-located according to patterns of need providing access to the requisite specialist skills in a single treatment centre. The modern primary health care centre is a key example. An individual clinician may be trained in multiple domains so as to provide more complete patient care, for example treating common medical issues in a patient with alcohol use disorder. This can lead to efficient and cost-effective patient care. It is critical to ensure that professionals define and maintain professional boundaries concerning their training and skills so that quality of care is maintained.

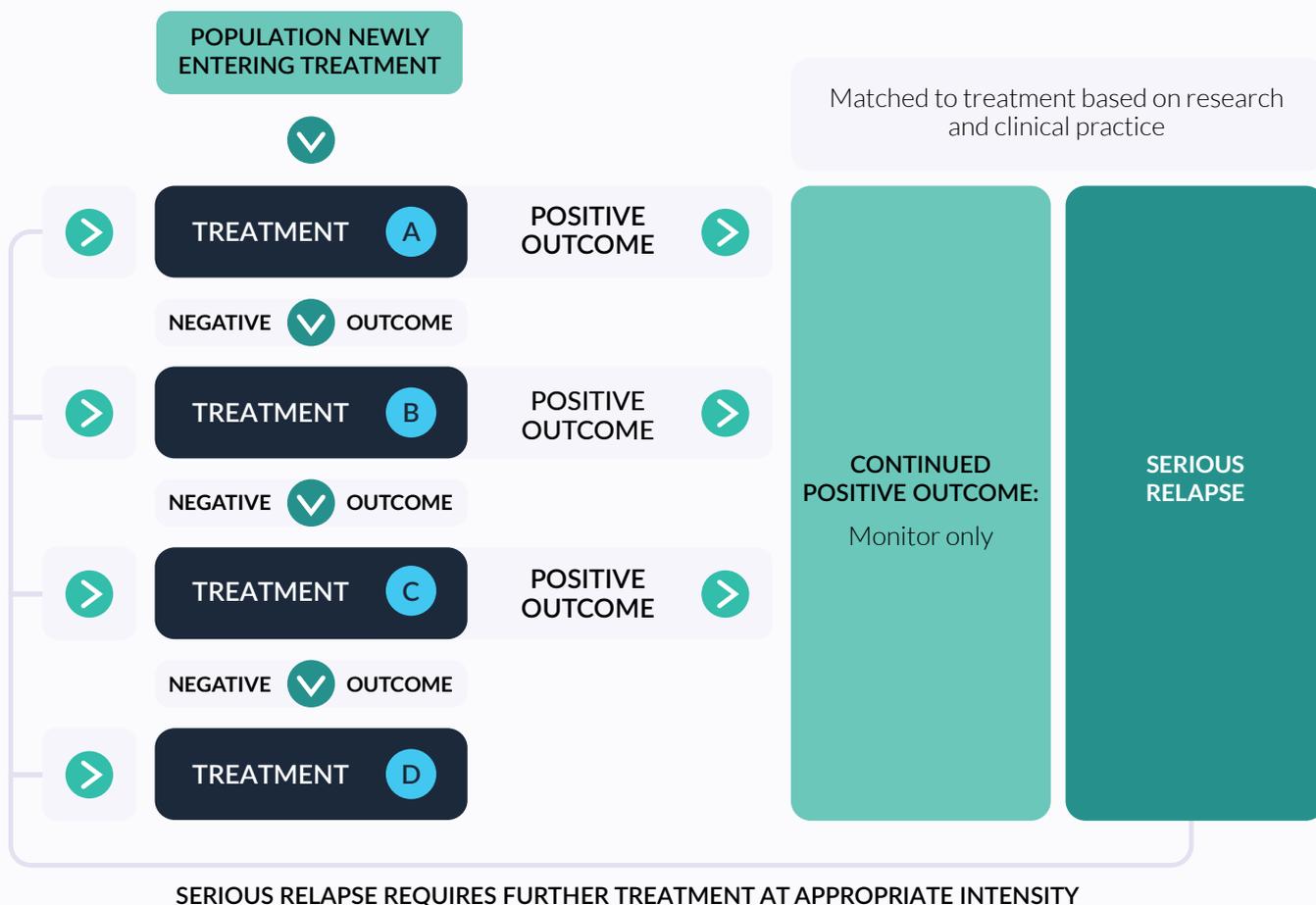
Screening, assessment and treatment planning is discussed in detail in [Chapter 4](#) and is the first step in determining appropriate care. The most common approaches to the coordination and delivery of care for people with alcohol problems include the stepped-care approach, case management, residential rehabilitation, and involuntary treatment. The following chapter does not discuss the content of interventions employed within these care systems but focusses on

the types of coordination and delivery of care that are available. Further information about psychosocial interventions, and pharmacotherapy approaches can be found in [Chapters 9](#) and [10](#).

STEPPED-CARE APPROACH

A stepped-care approach (Figure 5.2), which serves as a guide to clinical decision-making and treatment planning, is proposed. Stepped-care identifies that patients should first be offered the intervention most appropriate to their presentation; if that proves insufficient to achieve the patient’s agreed treatment goals, the next level of intensity of treatment should be offered until the desired treatment goals are achieved. Determining the level of intervention the individual needs is based on a thorough assessment and sound clinical judgement (see [Chapter 4](#)). The appropriate level of intensity of treatment is commenced and the patient’s progress is monitored and reviewed. The patient’s response to treatment determines the next step, which could be either continued monitoring of progress or, in the absence of clear benefit, stepped up intensity of treatment. For example, ambulatory withdrawal management should be considered first, reserving inpatient withdrawal for complex cases or treatment failure.

FIGURE 5.2: Stepped care approach for delivering health care services



Source: Sobell, MB & Sobell, LC 2000. 'Stepped care as a heuristic approach to the treatment of alcohol problems'. *Journal of Consulting and Clinical Psychology*, vol 68, no. 4, pp. 573-79

While limited evidence supports application of the stepped-care approach, it has sound ‘face validity’ in selecting treatment approaches and is an efficient use of resources. The stepped-care approach is proposed here as an adjunct to decision-making and does not replace clinical judgement and expert advice.

	RECOMMENDATION	GRADE OF RECOMMENDATION
5.1	Stepped-care may provide a useful adjunct to decision-making but does not replace clinical judgement and expert advice.	GPP
5.2	Stepped-care may be a cost-effective approach to initiating treatment.	GPP

CASE MANAGEMENT

Case management is an area of practice that is employed across a range of professions and settings suitable for drug and alcohol treatment. It provides a central process of co-ordination of individual client care and works to overcome obstacles in services access.

There is a myriad of case management styles, or models, each with different focus and often targeting a different population or level of need. The three types of case management covered in this chapter include broker/generalist case management, clinical case management, and assertive community management/treatment.

Broker/Generalist case management is the traditional style of case management. This type of case management is widely used in the drug and alcohol field and emphasises assessing client needs, providing referrals to other services and providing coordination and monitoring of treatment. Case management has been found to improve and increase linkage with services among people with substance use disorders, including alcohol.

While there exists a moderate amount of scientific literature examining case management, the generalisability of findings is limited. Studies often lack adequate descriptions, or the intervention is poorly defined; and inconsistencies in the application of the intervention, or poor intervention fidelity are common. These limitations make it difficult to properly control for non-experimental variables. However, there is current evidence to support case management can enhance linkage with other services and may improve retention in treatment. While evidence that case management reduces alcohol problems, or produces other beneficial outcomes is not conclusive, longer retention in treatment has been linked to improved outcomes.

Clinical case management has the clinician assume responsibility for treating the client utilising interventions such as counselling, psychotherapy and/or pharmacotherapy while providing brokerage type services where needed. There is little evidence available examining the effectiveness of this type of case management, and only one focussed primarily on people with substance use, including alcohol use problems.

	RECOMMENDATION	GRADE OF RECOMMENDATION
5.3	Consider case management for people with moderate to severe alcohol use problems where extra support to access ancillary services, and maintain treatment engagement, may be required.	B

Assertive community management or assertive community treatment is an intensive, community-based, multi-disciplinary team approach. This type of service targets people with a complex pattern of health, social, legal, financial and family problems and have difficulty engaging in conventional treatment. These services take a chronic disease management approach where time in treatment is extended to replace disconnected episodes of acute care with effective case management. Key specific elements of an Assertive community management include, rapid, low-threshold access to services, small protected caseloads, high ratio of community to service-based appointments, assertive engagement, and a shared care approach within a multi-disciplinary team. Assertive care remains voluntary such that patient autonomy is respected and consent obtained for all interventions. This approach also engages family or carers when possible.

Assertive community management has been widely used in the Mental Health field with extensive research examining its benefits and outcomes for patients with co-occurring mental and substance use disorders. However, the benefit of this type of services has not been widely evaluated for people with primary alcohol use problems. Very few randomised controlled studies exist, and many studies have severe mental health diagnoses as part of the eligibility criteria. Research examining the effectiveness of assertive community management among persons with alcohol use problems without a focus on co-occurring severe mental health is limited. Only one randomised controlled trial (RCT) was identified but was not statistically powered to provide a definitive test of the effectiveness of the intervention. Based on this one study, there is insufficient evidence to support any clinical recommendations.

	RECOMMENDATION	GRADE OF RECOMMENDATION
5.4	Assertive case management may assist people with severe alcohol use problems to access services, and improve treatment engagement.	GPP

RESIDENTIAL TREATMENT

Residential rehabilitation services offer intensive, structured interventions after withdrawal from drugs of dependence, including alcohol. Short-term residential treatment programs are commonly delivered in conjunction with a medically supervised withdrawal program and incorporate skills-building with a focus on cognitive/behavioural and relapse prevention interventions. Some evidence exists suggesting that people with more severe alcohol problems may benefit more from inpatient care, and those with low levels of alcohol problems may benefit more from outpatient care.

Therapeutic communities are a type of residential rehabilitation that emphasises a holistic approach to treatment and aims to address the psychosocial and other issues related to alcohol and/or other substance use disorders. Therapeutic communities are generally long-term programs from 12-52 weeks in length. A narrative review based on 16 studies concluded that there is some evidence for the effectiveness of therapeutic community treatment. However, there is little evidence that therapeutic communities offer significant benefits in comparison with other residential treatment, or that one type of therapeutic community is better than another. Evidence does exist to suggest that longer time in treatment is linked to improved outcomes.

In Australia, residential treatment services are offered by a range of providers including, government-administered agencies (Area Health Services), private for-profit providers (private hospitals and clinics), and not-for-profit agencies.

	RECOMMENDATION	GRADE OF RECOMMENDATION
5.5	Residential treatment may be considered for people with severe alcohol use problems for whom non-residential treatment options have failed to address their treatment needs.	GPP

INVOLUNTARY TREATMENT

Involuntary, compulsory, or mandatory treatment is reserved for the treatment of people with the most severe substance use disorders. In Australia, NSW¹, Victoria², Tasmania³, and Northern Territory⁴ have laws which allow for a period of detention for the purposes of treatment. Eligibility for these programs vary according to the legislation underpinning them. Generally speaking, the person must have a severe substance dependence, have lost the capacity to make decisions in their best interests, and that care, treatment or control of the person is necessary to protect them from serious harm. There should be a reasonable prospect of benefitting from the proposed treatment which is not merely detention per se. Other criteria according to the ruling legislation must also be met.

Involuntary treatment programs in Australia generally provide short-term care with an involuntary supervised withdrawal component (up to 28 days) and a voluntary aftercare component. Referrals can be made for an assessment which must be undertaken by an accredited medical practitioner. Admission is then approved by a court. Involuntary treatment is generally considered to be an option of last resort. Evaluations have revealed some positive outcomes but there are no formal trials that demonstrate the effectiveness or cost-effectiveness of this treatment approach. A key practical concern is to match the treatment service to the requirements, which are resource intensive.

¹ *Involuntary Drug and Alcohol Treatment Act 2007*

² *Severe Substance Dependence Treatment Act 2010 (SSDTA)*

³ *Alcohol and Drug Dependency Act 1968*

⁴ *The Alcohol Mandatory Treatment Act 2013*

	RECOMMENDATION	GRADE OF RECOMMENDATION
5.6	Evidence currently does not support improved outcomes related to involuntary treatment beyond the period of detention.	D

MANAGED ALCOHOL PROGRAM

Managed alcohol programs (MAPs) are a novel harm reduction intervention for people who experience long-term homelessness and severe long-term alcohol dependence. MAPs provide regulated amounts of alcohol onsite under supervision. Preliminary international evidence suggests that MAPs are associated with some reduction in consumption although still at WHO high-risk levels. Consumption of non-beverage alcohol (such as ‘meths’) decreases along with some alcohol-related harms. There are currently no MAPs in Australia but further evaluation of this model is underway. These developments may play a role in reducing the harm associated with severe alcohol dependence but no recommendation can be made concerning the effectiveness or cost-effectiveness of a MAP in Australia at this time.

CHAPTER 6

BRIEF INTERVENTIONS FOR ALCOHOL USE AND RELATED- PROBLEMS

Authors | Leanne Hides & Catherine Quinn

This chapter provides a description of brief interventions and their role in addressing alcohol use and/or alcohol-related problems. It describes the common components of brief interventions, and the current evidence-base for which populations and settings brief interventions are most effective.



BRIEF INTERVENTIONS FOR ALCOHOL USE AND RELATED-PROBLEMS

Brief interventions are an important component of alcohol treatment. They are brief psychosocial interventions that include screening and assessment feedback, and the provision of counselling and information to achieve a reduction in alcohol use and/or alcohol-related problems. Most recent definitions of brief interventions use motivational interviewing (MI) techniques to achieve these goals (also covered in [Chapter 9](#)). Brief interventions are delivered in a time-limited way, ranging from one to four sessions of between 5 and 30 minutes.

Opportunistic brief interventions are offered to people who have not sought treatment for alcohol use, but present to other settings (e.g., emergency departments, general practice) with alcohol-related illnesses, injuries and/or problems. Routine screening is sometimes used in these settings to identify people drinking at risky levels, who may or may not have experienced alcohol-related problems. Such interventions aim to increase people's awareness that they are drinking at risky levels, and encourage them to decrease their drinking to prevent or reduce their risk of alcohol-related harm.

Brief interventions are also offered to people seeking help for alcohol-related problems. They can be delivered as a standalone treatment or as a motivational prelude to pharmacological (see [Chapter 10](#)) and/or more intensive psychosocial alcohol treatment (see [Chapter 9](#)). They are also offered as the initial step, in stepped care models of healthcare, in which those who do not respond to a brief intervention, are stepped up to more intensive alcohol treatment. Brief MI interventions are also delivered as part of integrated interventions in which they are combined with more intensive psychosocial treatments for alcohol, such as cognitive behaviour therapy (CBT).

WHAT ARE THE KEY COMPONENTS OF BRIEF INTERVENTIONS?

There is considerable variability in the content and length of brief interventions. The majority of brief interventions contain screening, feedback, information and MI strategies. There are a number of frameworks with comparable structures which can be used to guide the delivery of a brief intervention including: FLAGS (feedback, listen, advice, goals, strategies; see Table 6.1), FRAMES (feedback, responsibility, advice, menu, empathy, self-efficacy; see Table 6.2). The treatment context and clinical skills of workers are key determinants of which components are delivered.

TABLE 6.1: FLAGS

Feedback	<p>Provide individualised feedback about the risks associated with continued drinking, based on current drinking patterns, problem indicators, and health status.</p> <p>Discuss the potential health problems that can arise from risky alcohol use.</p>
Listen	<p>Listen to the patient's response.</p> <p>This should spark a discussion of the patient's consumption level and how it relates to general population consumption and any false beliefs held by the patient.</p>
Advice	<p>Give clear advice about the importance of changing current drinking patterns and a recommended level of consumption.</p> <p>A typical five to 10 minute brief intervention should involve advice on reducing consumption in a persuasive but non-judgemental way.</p> <p>Advice can be supported by self-help materials, which provide information about the potential harms of risky alcohol consumption and can provide additional motivation to change.</p>
Goals	<p>Discuss the safe drinking limits and assist the patient to set specific goals for changing patterns of consumption.</p> <p>Instil optimism in the patient that their chosen goals can be achieved.</p> <p>It is in this step, in particular, that motivation-enhancing techniques are used to encourage patients to develop, implement and commit to plans to stop drinking.</p>
Strategies	<p>Ask the patient to suggest some strategies for achieving these goals.</p> <p>This approach emphasises the patient's choice to reduce drinking patterns and allows them to choose the approach best suited to their own situation.</p> <p>The patient might consider setting a specific limit on alcohol consumption, learning to recognise the antecedents of drinking, and developing skills to avoid drinking in high-risk situations, pacing one's drinking and learning to cope with everyday problems that lead to drinking.</p>

TABLE 6.2: FRAMES

Feedback	Provide feedback about the patient's AOD use and related-problems, and the risks associated with them, as well as general information about AOD related harm. Feedback can include a comparison between the patient's AOD use and population norms.
Listen	Acknowledge the patient is responsible for their own behaviour and that they can make choices about their AOD use.
Advice	Provide clear advice about the current and future potential harms associated with continued AOD use.
Goals	Provide the patient with a range of alternative strategies to choose from to help them cut down or cease AOD use. Examples include: AOD use monitoring, engaging in alternative activities instead of AOD use, identifying high risk situations and strategies to avoid them, providing other self help resources.
Strategies	Deliver the brief interventions using a warm, empathic and understanding approach.
Self-efficacy	Build the patient's confidence in their ability to make a positive change in their AOD use.

MOTIVATIONAL INTERVIEWING (MI)

The majority of brief interventions are delivered in the spirit of MI. This client-centred, directive therapeutic approach enhances readiness for change by helping clients explore and resolve ambivalence about change. The following four basic principles of MI are used to enhance a client's motivation and commitment for change: (i) expressing empathy, (ii) highlight discrepancies, (iii) support self-efficacy and (iv) resist the "righting reflex". A summary of the key components of brief MI interventions is provided in the Table 6.3.

SCREENING, FEEDBACK AND INFORMATION

Brief screening tools, are used to identify people who may benefit from a brief intervention (see [Chapter 4](#)). They can also provide valuable information on the frequency and consequences of alcohol use. The delivery of personalised, informal feedback on the screening tools, is a key component of brief interventions. This may include information on the frequency/quantity or severity of alcohol use and related-problems, as well as how they compare with clinical or population norms. The feedback process provides an important opportunity to provide information on the psychological, social and physical consequences of alcohol use. Information

on harm reduction strategies (e.g., setting limits, drink water) for reducing risk of alcohol-related harms is also commonly provided. Assessment feedback and information is typically provided in a collaborative manner, using the ‘elicit-provide-elicit’ approach (i.e. first ask for permission, offer the information, and then ask for the client’s response). This provides an important opportunity to increase the patient’s awareness of their alcohol use, and begin to explore and understand the associated risks or consequences.

GOAL SETTING

Goal setting is a key component of brief interventions. People who acknowledge they may be drinking too much may be willing to set a goal for making a change in their alcohol use. It is important to ensure these goals are specific, realistic and achievable, and help them come up with a plan for how they can make this change. Some people may not perceive change as necessary; providing these patients with advice and information about the potential consequences of continued use may help them recognise that their consumption of alcohol is excessive. If they are not receptive to making a change in their alcohol use, it may be useful to focus on how they can use harm minimisation strategies (e.g. drink water, eat first) to make a change in their alcohol-related behaviours instead.

REFERRAL TO TREATMENT

The additional step of referral to treatment has been added to recent brief intervention frameworks (e.g., Screening, Brief Intervention, and Referral to Treatment (SBIRT) programs). This enables brief interventions to be offered to people with severe alcohol problems or dependence, such that, patients who are assessed to require more treatment, or do not respond to a brief intervention are referred for more intensive alcohol treatment.

TABLE 6.3: Key Components of Brief Interventions

- **Engagement**
- **Screening and assessment feedback**
- **Information**
 - *General principles*
 - Express empathy
 - Highlight discrepancies between current behaviour and the client’s goals and values
 - Resist the “righting reflex” (don’t tell your client what to do)
 - Support self-efficacy
- **Build motivation to address alcohol use**
 - *Skills*
 - *Ask open ended questions*

- Listen reflectively
- Affirm
- Summarize
- Rate importance of making a change and confidence in making a change
- **Build commitment to change and develop a change plan**
 - Skills
 - Summarize/recapitulate
 - Develop goals
 - Develop a change plan
 - Rate how likely it is the patient will implement their change plan
- **Referral to further alcohol treatment (if required)**

HOW EFFECTIVE ARE BRIEF INTERVENTIONS DELIVERED ACROSS MULTIPLE SETTINGS?

Results from seven meta-analyses have consistently shown that brief interventions effectively reduce levels of alcohol consumption in adolescents, young adults and adults compared to no intervention. However, the effect sizes can be small, and tend to reduce over time. Brief interventions are as effective as alternative alcohol interventions and standard care, for reducing alcohol consumption, and may be more cost effective.

Although there has been debate about whether brief interventions are effective among people with more severe alcohol use, current evidence suggests that MI is effective. There is also no consistent evidence that more intensive alcohol treatment is more effective than MI for excessive alcohol use or dependence. Together these findings suggest that consistent with stepped care models of care (see [Chapter 5](#)), MI should be offered first, followed by more comprehensive alcohol and other drug treatment if the patient does not respond, or if clinically indicated (e.g. presence of withdrawal symptoms).

	RECOMMENDATION	GRADE OF RECOMMENDATION
6.1	Brief motivational interviewing reduces alcohol consumption in adolescent, young and older adults with risky/hazardous patterns of alcohol use, compared to no treatment, but effects are small.	A
6.2	Brief motivational interviewing is not more effective than standard care or alternative alcohol treatments for reducing alcohol consumption in adults with risky patterns of alcohol use.	B

RECOMMENDATION		GRADE OF RECOMMENDATION
6.3	Brief motivational interviewing is more effective than alternative alcohol treatments in young adults, but effects are very small.	A

WHERE SHOULD BRIEF INTERVENTIONS BE DELIVERED?

Brief interventions can be delivered in a variety of settings, including primary care (general practice, emergency departments, general hospital inpatient wards and outpatient clinics), high schools and higher education settings (university/colleges), alcohol and other drug treatment services, community counselling and welfare services, justice settings and the workplace.

GENERAL PRACTICE AND OTHER PRIMARY CARE SETTINGS

Routine screening in general practice can identify people who drink at risky levels that are suitable for brief interventions, as about 85 per cent of the population visits their general practitioner at least once each year. General practitioners also have the resources and skills to offer a brief intervention and therefore have both the ability, and potential to substantially reduce risky levels of drinking.

A recent review found that brief interventions delivered in primary care settings reduced the amount of alcohol consumed in adolescents, young adults and adults who engaged in hazardous and harmful drinking; compared to no intervention, standard care or minimal treatment. This equated to a 20-gram (2 standard drink units) reduction in the quantity of alcohol consumed per week in adults over 12 months. Brief interventions are also likely to be a cost-effective option for reducing alcohol use in primary care settings, but have little impact on future primary healthcare or alcohol and drug service utilisation.

The level of evidence for effectiveness of brief interventions in primary care settings is strong. Routine screening for excessive alcohol consumption, and brief interventions are recommended for general practice settings.

RECOMMENDATION		GRADE OF RECOMMENDATION
6.4	Brief interventions reduce alcohol consumption in people with risky patterns of alcohol use accessing primary care settings, and should be routinely offered in these settings.	A
6.5	Brief interventions delivered in primary care settings are likely to be cost-effective, compared to treatment as usual.	A

	RECOMMENDATION	GRADE OF RECOMMENDATION
6.6	Brief interventions delivered in primary care, emergency department, and general hospital inpatient settings have little impact on future healthcare or AOD service utilisation.	A

EMERGENCY DEPARTMENTS AND TRAUMA CENTRES

There are high rates of alcohol-related injuries and conditions among people attending emergency departments. One Australian study across nine hospitals reported a third of the presentations were alcohol-related. Data suggest that a recent alcohol-related emergency admission increases patient receptivity to intervention (a “teachable moment”), indicating that emergency departments provide an invaluable opportunity for delivering brief alcohol interventions.

The two most recent meta-analyses of studies examining the effects of brief interventions in emergency department settings, found they reduced alcohol consumption among people with alcohol-related presentations at both short-term and 12 months follow up, but effects were very small. Results were restricted to non-injury specific presentations in one of the studies. An earlier meta-analysis found brief interventions were associated with reductions in alcohol-related injuries compared to standard care, but found no differences in alcohol consumption at 12 month follow up. There is little evidence for the effectiveness of brief interventions for adolescents and young adults with alcohol-related emergency department presentations. The only meta-analysis conducted in this age group concluded that MI was no more effective for reducing alcohol consumption than no, or minimal, treatment control conditions. Similar results were found in three systematic reviews of brief interventions (majority MI) for adolescents and young adults with alcohol-related emergency department presentations.

In summary, brief interventions in this setting result in reductions in alcohol consumption among adults with alcohol-related emergency department presentations at both short-term and 12 months follow up, but effects are very small. There is little evidence brief interventions are more effective than no treatment, standard care, or minimal alcohol treatment (e.g. educational brochure, assessment feedback) for young people.

	RECOMMENDATION	GRADE OF RECOMMENDATION
6.7	Brief interventions are beneficial in emergency departments for reducing alcohol consumption among adults with alcohol-related presentations, compared to no treatment, standard care, or minimal alcohol treatment (e.g. educational brochure, assessment feedback).	B

	RECOMMENDATION	GRADE OF RECOMMENDATION
6.8	Brief interventions are not more effective than no treatment, standard care, or minimal alcohol treatment (e.g. educational brochure, assessment feedback) for reducing alcohol use in adolescents or young adults accessing emergency departments.	A

GENERAL HOSPITAL WARDS AND OUTPATIENT CLINICS

Clear associations have been found between hospital admissions for traumatic incidents or medical problems and alcohol consumption. Common alcohol-related hospitalisations including alcohol dependence/abuse, cancers, cardiovascular disease and digestive diseases. A positive screen for risky drinking a year before surgery predicts more days in intensive care and hospital post-surgery and a higher likelihood of returning for further surgery within 30 days. Hospital wards can be a particularly effective setting for delivering brief interventions to people who drink at risky levels who already demonstrate or may be at risk of developing alcohol problems. Patients are also often more motivated and willing to change their drinking behaviours after being hospitalised, and reductions in alcohol use are also likely to have benefits for their medical presentation.

A meta-analysis on brief interventions delivered in general hospital inpatient wards for heavy alcohol users found it had benefits in terms of reduced alcohol consumption and death rates up to 12 months later. Limited research on the effectiveness of brief interventions delivered in general medical outpatient services has been conducted to date. There is preliminary evidence that brief motivational interviewing may be effective for reducing alcohol use in oral and maxillofacial outpatient clinics, but it is not effective in general outpatient clinics.

	RECOMMENDATION	GRADE OF RECOMMENDATION
6.9	Brief interventions are not more effective than no treatment, standard care, or minimal alcohol treatment (e.g. educational brochure, assessment feedback) for reducing alcohol use in adolescents or young adults accessing emergency departments.	B
6.10	Brief MI may be beneficial for heavy alcohol users attending oral-maxillofacial outpatient clinics, but appear to be ineffective in other hospital outpatient clinics among adults with non-alcohol related presentations.	D

PHARMACIES

Pharmacies have been identified as another potential site where brief alcohol interventions could be implemented, as pharmacists have regular contact with consumers through their role of dispensing medication and aiding consumers in the management of minor ailments. However, while there is evidence it may be feasible to implement brief interventions in pharmacy settings, there is currently no evidence to support the efficacy of these interventions in this context.

	RECOMMENDATION	GRADE OF RECOMMENDATION
6.11	There is no evidence that screening and brief interventions are effective for alcohol users presenting to community-based pharmacies	B

SPECIALIST OUTPATIENT SUBSTANCE USE TREATMENT SERVICES

There is high demand for specialist substance use treatment services in Australia, however, much of this demand is unmet. Outpatient counselling is the most common form of treatment accessed, but clients only attend an average of 1.6 treatment sessions. A recent meta-analysis of 48 randomized controlled trials of psychosocial treatments in alcohol outpatient settings, found the duration of treatment attendance had no impact on long-term alcohol outcomes. Together these findings suggest that not all clients who present to substance use services need intensive psychosocial or pharmacological treatment, and some may benefit from brief interventions. Stepped care models which offer low intensity brief interventions first, followed by more intensive treatment to clients who request, are assessed to require more (e.g. presence of withdrawal symptoms), or do not respond to treatment; have been recommended as a way to meet the unmet demand and maximise the cost-effectiveness of outpatient substance use treatment in Australia. Yet, there is still limited research examining stepped care models, or the efficacy of brief interventions within specialist settings.

Only one meta-analysis has examined the efficacy of brief interventions for people seeking treatment from specialist substance use services. Twenty studies compared brief interventions to more extended substance use treatment, finding no differences in alcohol outcomes. A more recent high-quality randomized controlled trial also found no difference in the alcohol outcomes following three sessions of motivational interviewing with feedback, compared to a 12 session psychosocial intervention. While findings suggest that brief interventions were no less effective in reducing alcohol use in specialist outpatient AOD treatment settings, than more extended interventions, further research is required to establish equivalency.

RECOMMENDATION		GRADE OF RECOMMENDATION
6.12	There is preliminary evidence that three sessions of motivational interviewing with feedback results in larger short-term reductions in alcohol consumption in adults accessing outpatient substance use treatment, than standard counselling.	B

EDUCATIONAL SETTINGS

Across the globe, the age of onset of adolescent alcohol use has been gradually increasing. Despite this, over half of Australian adolescents have consumed alcohol in their lifetime. Drinking rates still remain high in young adults (18-24 years), with 42% drinking above national guidelines (no more than 4 standard drinks) on a single occasion. The earlier young people start drinking the more at risk they are for long-term alcohol dependency and alcohol-related harm. The provision of brief interventions for alcohol use in educational settings could reduce such risk.

Only one meta-analysis has examined the effects of brief interventions in high school settings, concluding that although some positive short- and medium-term benefits were identified, no definitive statements could be made about the effectiveness of BI's for reducing adolescent alcohol use in school settings.

Four meta-analyses have examined the effects of brief interventions in university students. Three found brief interventions significantly reduced alcohol use and related problems in university students compared to no treatment or alternative alcohol treatments, but only small effect sizes were reported. In conclusion, there is evidence for the effectiveness of brief alcohol interventions for reducing alcohol consumption and related problems in university students, compared to no or minimal alcohol treatments. There is also preliminary evidence for their cost effectiveness in university students.

RECOMMENDATION		GRADE OF RECOMMENDATION
6.13	Brief motivational interviewing may be used in high school settings, but should not be a sole intervention strategy.	C
6.14	There is evidence brief motivational interviewing interventions can result in small reductions in alcohol consumption in young adults attending higher education settings, compared to no or minimal alcohol treatment (e.g., information brochure, assessment feedback). There is also preliminary evidence for their cost effectiveness.	B

COMMUNITY COUNSELLING AND WELFARE SERVICES

Patients may present to community counselling services with a variety of complaints that may be related to their alcohol or other drug use, including financial, relationship, employment or parenting problems. Brief interventions may be appropriate for those drinking at risky levels; however as yet there is little evidence for their effectiveness in these settings.

	RECOMMENDATION	GRADE OF RECOMMENDATION
6.15	Brief interventions in community health and welfare settings may be used, but should not be a sole intervention strategy.	D

WORKPLACE SETTINGS

Excess alcohol consumption has been linked to multiple adverse consequences in the workplace including increased absenteeism, reduced productivity and reduced profits. With 28.4% of Australian employees estimated to experience an alcohol disorder in their lifetime, and many adults spending approximately one third of their day in the workplace, there is potential for brief alcohol interventions to be opportunistically delivered within workplace settings.

Three systematic reviews have been conducted on brief interventions in workplace settings. The majority of included trials found brief interventions were not more effective in reducing alcohol consumption than screening and information. The low participation and poor follow-up rates of workers reported in many of these studies, question the feasibility of delivering brief interventions in workplace settings.

	RECOMMENDATION	GRADE OF RECOMMENDATION
6.16	Brief interventions delivered in workplace settings are unlikely to be effective for alcohol users	B

CRIMINAL JUSTICE SETTINGS

Alcohol is estimated to cost to the criminal justice system \$2,958 billion per year, with much of this cost incurred by policing (38%) and prisons (21%). Alcohol use concerns are highly prevalent in prison settings, with 58% of Australian prisoners reporting high risk drinking. Alcohol Use Disorders are highly prevalent, experienced by approximately 24% of prisoners worldwide.

Most brief intervention studies conducted in criminal justice settings have focused on prisons, with a small number of trials in police custody and probation settings. In instances where brief

interventions were found to be more effective than control conditions, they were conducted with female only samples in prisons, with moderate evidence for short term reductions in alcohol use. No other differences in the alcohol use outcomes of brief interventions versus control conditons were found; however, they may reduce reoffending.

	RECOMMENDATION	GRADE OF RECOMMENDATION
6.17	Brief interventions in prison settings may result in short-term reductions in alcohol use among females.	B

WHO TO TARGET FOR BRIEF INTERVENTIONS?

The effects of BIs on alcohol outcomes are likely to vary between different target groups.

DO THE EFFECTS OF BIS FOR REDUCING ALCOHOL CONSUMPTION AND RELATED PROBLEMS VARY BY AGE, SEX OR ETHNIC GROUPS?

Meta-analyses report age and sex have no impact on alcohol outcomes in adolescent, young adult or adult populations. However, females in university and prison settings have been found to have significantly better alcohol outcomes in several meta-analyses. Research has found differential effects for BIs in some ethnic groups, but the majority of research has been conducted among Caucasians in first world countries.

DO THE EFFECTS OF BIS VARY ACCORDING TO HELP SEEKING STATUS?

Only one meta-analysis has examined whether the effects of MI delivered across multiple settings varied by help seeking status. No differences in the effects of MI compared to no treatment were found. MI was more effective than active treatments in one study of treatment seekers, compared to six studies of non-treatment seeking samples. More recent studies have not examined the influence of help seeking status on MI outcomes, as help-seeking status tends to vary by the setting the MI is delivered in.

DO THE EFFECTS OF BIS VARY ACCORDING TO THE SEVERITY OF ALCOHOL USE?

There has been debate about whether BIs are effective among people with more severe alcohol use and dependence. While some early trials excluded people with dependence, more recent studies have typically not measured dependence and only used a minimum inclusion threshold for alcohol consumption with no upper limit for exclusion. This means people with alcohol dependence have likely been included in these studies. As a result, it remains unclear if the

impact of BIs differs among people with high levels of risky alcohol use and/or dependence. Nevertheless, existing research suggest that MI may be more effective than no treatment for reducing alcohol use among young people and adults, regardless of the severity of their alcohol use. Consistent with stepped care models of care, more intensive treatment should be offered if this is clinically indicated (e.g. presence of alcohol withdrawal symptoms) or they do not respond.

	RECOMMENDATION	GRADE OF RECOMMENDATION
6.18	Brief motivational interviewing may be more effective than no treatment for young people and adults, regardless of the severity of their alcohol use, but more intensive treatment should be offered if this is clinically indicated (e.g. presence of alcohol withdrawal symptoms) or they do not respond.	B

WHAT ARE THE CHARACTERISTICS OF EFFECTIVE BRIEF INTERVENTIONS?

The characteristics of brief interventions including the components, length and mode of delivery may impact on alcohol outcomes.

WHICH TYPE OF BRIEF INTERVENTION IS MOST EFFECTIVE?

A number of meta-analyses have compared the outcomes of MI with assessment feedback compared to MI alone. Current evidence suggests brief interventions containing personalised assessment feedback and MI have slightly better outcomes than MI alone.

WHAT ARE THE MECHANISMS OF CHANGE OF BRIEF INTERVENTIONS?

A growing number of studies have tried to identify the active ingredients of brief alcohol interventions. Brief interventions targeting these mechanisms of change for reducing alcohol use, could increase their effectiveness. A review of 61 brief alcohol intervention trials found descriptive norms (perceptions of peer alcohol use) mediated normative feedback intervention efficacy, and motivation to change consistently failed to mediate MI efficacy. Mediators with mixed but promising support included protective behavioural strategies, outcome expectancies, self-efficacy, changes in emotion constructs and coping motives. A recent study found differences in the mediators of change in alcohol use at short versus longer term follow up. Together these results indicate we have a limited understanding of the mechanisms of change of brief alcohol interventions, and further research is needed.

DO THE EFFECTS OF BRIEF INTERVENTIONS VARY BY THE LENGTH OF TREATMENT OR MODE OF DELIVERY?

Current evidence indicates the length of brief interventions has no impact on alcohol outcomes in adolescents, young and older adults in any treatment setting. Individual MI is more effective than group-MI compared to no or alternative alcohol treatments.

WHO CAN DELIVER BRIEF INTERVENTIONS?

Any health professional or treatment provider with appropriate training can deliver brief interventions including: alcohol and drug and mental health workers, psychologists, social workers, nurses, counsellors, psychiatrists, physicians, dieticians, pharmacists, probation officers, peers and behavioural health care providers.

	RECOMMENDATION	GRADE OF RECOMMENDATION
6.19	A range of providers (including counsellors, doctors, nurses, peers) with appropriate training, can effectively deliver brief interventions	B

WHAT ARE THE MOST EFFECTIVE METHODS FOR TRAINING PROVIDERS TO DELIVER BRIEF INTERVENTIONS?

A meta-analysis of 21 studies found 1-2 day (12-15 hour) training workshops skills consisting of face-to-face dyadic instruction and interactive exercises resulted in large improvements in MI skills. Enhanced workshops (context tailored approach, feedback on audio-recordings, audio-recorded practice samples, computer based-technologies and/or train the trainer models) did not have better outcomes. The provision of 3-4 post-workshop feedback and coaching sustained MI skills at 6 months follow up, whereas moderate reductions in MI skills were found, when no post workshop follow-up was provided.

DOES MI ADHERENCE IMPACT ON ALCOHOL OUTCOMES?

A meta-analysis of studies found therapists who exhibited a higher proportion of MI-consistent skills (c.f. MI-inconsistent skill) elicited a higher proportion client change talk, larger reductions in alcohol use and other risk behaviours. A second study examining predictors of MI adherence found the largest variations (57-94%) occurs within providers. This highlights the importance of ensuring MI therapists have appropriate MI training, as well as access to ongoing supervision and fidelity monitoring to sustain MI skills and avoid therapist drift.

6.20 Comprehensive 1-2+ day training workshops, which incorporate face-to-face dyadic instruction and interactive exercises, as well as 3-4 post-workshop feedback/coaching sessions, are likely to be an effective means to train and sustain MI skills. Ongoing supervision is also recommended.

B

IMPLEMENTATION OF BRIEF INTERVENTIONS INTO CLINICAL PRACTICE

Historically, a 17-25 year gap has been identified from the time evidence is established for a psychological intervention to implementation of the intervention in clinical practice. Even when a mental health intervention is implemented in practice, program sustainability is difficult, with one study finding only 47% of services maintained fully implemented evidence-based interventions for 6 years. Hence, even if brief interventions are found to be effective modes of treatment for alcohol, it is necessary to also consider whether they can feasibly be implemented as part of routine care.

While brief interventions have been implemented across multiple settings, with different countries adopting national strategies to support their implementation, a number of challenges have been identified. Common barriers that impact screening rates and the effective delivery of brief interventions include lack of time, competing commitments, and adequate space. Facilitators to implementations include: having interdisciplinary teams conduct the screening; having a brief screening tool which is integrated in routine care and existing electronic systems; having onsite specialists, who are integrated with existing service teams, conducting brief interventions on site or over the phone to increase client engagement, as well as ensuring that there is a feedback loop post-intervention to the referrers. Having a start-up phase to the implementation and adopting multiple types of intervention strategies that focus on the professionals, organisations and clients/patients. Finally having a clear monitoring system, clear targets, and a “champion” in a leadership position who provides logistical and problem-solving support as well as charisma and strong consistent messaging. These barriers and facilitators need to be considered and actively addressed to facilitate the efficient and effective implementation of BIs.

SUMMARY AND LIMITATIONS OF BRIEF INTERVENTIONS

Most alcohol-related harm in the community is caused by people who drink excessively whose consumption exceeds recommended drinking levels, not the people who drink with alcohol dependence. One way to reduce consumption levels in a community is to provide access to brief interventions. Brief interventions containing MI are superior to no treatment for reducing alcohol

consumption in adolescents, younger and older adults across multiple settings, but effects are small. Brief MI is not more effective than standard care or alternative alcohol treatments for reducing alcohol consumption in adults with risky patterns of alcohol use. It is more effective than alternative alcohol treatments in young adults, but effects are very small. However, it should be noted that the generalisability of the recommendations contained in this Chapter are limited to non-European first world countries (e.g. mainly North America) where the majority of studies were conducted.

Evidence for the efficacy of brief alcohol intervention is strongest in primary care settings, including general practice, general medical inpatient wards and emergency departments. Evidence is strongest in general practice settings and weakest in emergency departments, particularly in young people. Brief interventions of 3-4 sessions have been found to be no less effective than more extended alcohol treatments in specialist substance use treatment settings; however, more research on brief interventions in specialist services is needed. There is also evidence MIs are beneficial in higher education settings but effects are very small. There is no or insufficient evidence for brief alcohol interventions in hospital outpatient clinics, secondary school students, community welfare, pharmacies or workplace settings. Finally, there is preliminary evidence for the efficacy of BIs for female prisoners.

The implementation of brief interventions into clinical practice remains a challenge. Little is known about how to best train, supervise and monitor MI therapist fidelity; however, 1-2+ day workshops, with follow-up coaching sessions, and ongoing supervision is likely to be beneficial. While some progress has been made with identification of common barriers and facilitators to implementation this research is in its infancy. Common facilitators of implementation that warrant consideration include technological aids, specialist roles to deliver the brief interventions, leadership commitment and involvement in the implementation, embedding the screen and brief intervention into normal workplace practices, and using telehealth services to increase reach.

The outcomes of this review could be perceived as modest and discourage clinicians from using brief interventions routinely. One key limitation of brief intervention are their small effects. For example, a mean reduction 20 grams/week (2 standard drinks) in alcohol use was found for brief interventions delivered in primary care settings. Even smaller effects were found in young adults, primarily college students. This means many participants would continue to drink at a level that would be considered hazardous according to recommendations in most countries. However, any reduction is still likely to be beneficial at an individual level, given the adverse impact of alcohol on health. At a population level, any reduction is likely to have a significant impact on health, quality of life and healthcare resource use, given that between 5 and 12% of the burden of disease in Australia is attributable to alcohol.

It should be noted that more recent brief intervention trials tend to demonstrate less impact on alcohol consumption than older trials. As a result meta-analyses on brief alcohol interventions have found smaller effect sizes over time. There are several potential reasons for this. First, the definition of excessive drinking used in national guidelines have reduced over time, which has reduced the inclusion criteria threshold for at risk drinking in more recent trials. Consequently, less change is required to reach a lower risk drinking level, reducing effect sizes. Second and

third, assessment reactivity to the screening tools, as well as the provision of alcohol-related information to the minimal or no treatment control conditions in more recent trials, might have increased the control group's awareness of alcohol problems and resulted in decreases in alcohol use. Future research evaluating BIs using ultra-brief research assessments and masked research designs (e.g. lifestyle survey containing alcohol questions) is required to investigate these issues further.

These limitations highlight the need for further research on how to enhance the impact of brief interventions. Research examining the active ingredients of brief interventions and characteristics of the individuals most likely to benefit from them may help increase their effectiveness. There is an urgent need for consensus agreement on a core set of alcohol consumption and alcohol-related problem measures to increase the comparability of brief intervention trials and facilitate future meta-analyses. Longer follow-up times are also needed to increase understanding of the duration of effects.

CONCLUSION

There is strong evidence for the superiority of brief alcohol interventions compared to no treatment across multiple settings. Evidence for the effectiveness of brief interventions compared to standard care or active alcohol treatments is limited. While there is evidence of the cost effectiveness of brief alcohol interventions in some settings, their implementation remains remarkably low. The provision of brief interventions across a variety of settings has the potential to provide large numbers of people with access to brief, cost-effective alcohol treatment. While effects are small, at a population level brief interventions could make a significant contribution to the reduction to the impact of alcohol on the burden of disease and injury in Australia.

CHAPTER 7

BRIEF E-HEALTH INTERVENTIONS FOR ALCOHOL USE AND RELATED- PROBLEMS

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This chapter provides a description of brief e-health interventions and their role in addressing alcohol use and related problems. The chapter describes common components of e-health interventions and the current evidence base and provides references for current e-health interventions.



BRIEF E-HEALTH INTERVENTIONS FOR ALCOHOL USE AND RELATED-PROBLEMS

As reviewed in [Chapter 6](#), Brief in-person Interventions are an effective and cost-effective way to reduce alcohol use problems. Despite this, most Australians who experience an alcohol use disorder (AUD) will never receive treatment, and for those who do, the average delay from emergence of AUD to first treatment contact is 18 years. Several barriers may prevent the implementation of Brief Interventions for alcohol use problems, such as: time, access to health professionals trained in brief intervention, lack of resources, cost, and the stigma associated with seeking treatment for problematic alcohol use. But brief e-health interventions (interventions delivered via internet, mobile phone, or computer) reduce several barriers to treatment. Specifically, brief e-health interventions for alcohol use problems are typically one session, can be accessed at the user's discretion, are easy to implement without special training, are cheaper than in-person interventions, have demonstrated good acceptability among people with alcohol use problems, and may reduce some of the stigma associated with seeking treatment. Indeed, among Australians who consumed alcohol in the past year, free online interventions are the preferred form of treatment for alcohol use. In Australia, brief e-health interventions for alcohol use are a particularly promising treatment option given that internet access (89%) and smartphone ownership (83%) is near ubiquitous. Thus, e-health interventions could be scaled up and become a critical tool to reach non-treatment-seekers, hard to reach communities, and younger people who drink (who are the most likely to have access to mobile phones and the internet).

E-HEALTH INTERVENTIONS FOR ALCOHOL USE PROBLEMS

E-health interventions are those that use the internet, mobile phones, or computers to deliver intervention materials.¹ Most take a similar approach to in-person Brief Interventions and include some form of screening and personalised feedback. Although some components of Brief Interventions are difficult to translate to a digital platform (e.g., empathy), brief e-health interventions contain similar behaviour change techniques ('active ingredients') and the most common techniques used are feedback about drinking, social comparisons to encourage changes in alcohol use in line with low-risk levels, information and feedback about consequences, motivational enhancement and personal capacity for change. To date, most brief e-health

¹ this definition is similar to the World Health Organization's: "the use of information and communication technologies (ICT) for health"

interventions for alcohol use problems have used online computer-based interventions and have been fully automated (i.e., no clinician input). In contrast, despite the promise of mobile applications, there is less evidence supporting their effectiveness.

WHO TO TARGET FOR BRIEF E-HEALTH INTERVENTIONS

Brief e-health interventions are an exciting method for treatment because (1) they can be easily sent out to a large group of people to prevent or intervene early with little clinician engagement (e.g., to an incoming cohort of university students) and (2) they can be used to screen and treat a broad range of people who drink as the feedback can be tailored to different drinking levels. Although they are promising, it is important to note that e-health interventions may be more accessible to certain populations (e.g., those with mobile devices, younger people with greater digital literacy) and less accessible to others (e.g., homeless, elderly people with poorer digital literacy). Furthermore, certain drinking groups may show a greater preference for e-health interventions than others (e.g., those who score lower on the AUDIT prefer e-health interventions compared to those who score higher). However, this is ideal as while there is evidence that brief e-health interventions are effective for treating individuals who are drinking above recommended limits, those who are drinking hazardously, with heavy episodic use, there is less evidence to suggest that they may be an effective treatment option for individuals recovering from AUDs and longer interventions are likely required to treat this additional level of severity of alcohol use problem.

WHO CAN DELIVER BRIEF E-HEALTH INTERVENTIONS

Unlike in-person Brief Interventions, no specific training is required to deliver brief e-health interventions for alcohol use problems, and most are fully automated. Some evidence does exist, however, that larger improvements are associated with brief e-health interventions that incorporate personal support (e.g. emails or text messages from a clinician) and that come from a credible source. There is also some evidence to suggest that brief e-health interventions for alcohol use problems are effective across several different populations, including universities, healthcare settings,² and other community settings. However, the evidence base comparing these settings against each other is weak and this is seen as an area for future research.

ARE BRIEF E-HEALTH INTERVENTIONS MORE EFFECTIVE THAN NO INTERVENTION?

Overall, the scientific consensus is that the effect of brief e-health interventions is small (range 2-5 standard weekly drinks; number needed to treat [medium risk to low risk] = 4.4) but consistent across studies, settings, and platforms, and is superior to control or minimal intervention alternatives. However, there is less evidence that brief e-health interventions are effective for more severe levels of alcohol use problems.

² Note that there has been mixed evidence in Emergency Department settings.

	RECOMMENDATION	GRADE OF RECOMMENDATION
7.1	Brief e-health interventions are effective in reducing alcohol use.	A
7.2	There is less evidence to suggest that brief e-health interventions are effective for more severe alcohol-related problems. At this stage, other strategies should be preferred.	B

ARE BRIEF E-HEALTH INTERVENTIONS MORE EFFECTIVE THAN IN-PERSON BRIEF INTERVENTIONS?

Overall, there appears to be no detectable difference between e-health and in-person interventions in the short-term, but in-person brief interventions may be more effective over longer periods of time (i.e., beyond 14 weeks). However, additional research is needed as very few studies directly compare e-health to in-person Brief Interventions. Thus, we recommend that in-person brief interventions should be offered if possible (i.e., the practitioner is trained and there is time) but that brief e-health interventions are offered when time is limited, with hard to reach populations, when another intervention will not be offered, or in conjunction with a brief in-person intervention.

	RECOMMENDATION	GRADE OF RECOMMENDATION
7.3	In-person brief interventions should be preferred to e-health interventions because they may have longer-term impacts than e-health interventions.	B
7.2	Brief e-health interventions should be offered when time is limited, as a first step in a longer intervention, with hard to reach populations, when another intervention will not be offered, when it is preferred by the patient, or in conjunction with an in-person brief intervention	GPP
7.5	E-health interventions which include some human assistance (face-to-face, or via text message or email) may be more effective than fully automated interventions, notwithstanding the resource and scalability limitations of doing so.	B

LIMITATIONS

There are several limitations to e-health interventions. First, e-health interventions tend to have a small effect (interventions reduce weekly drinking around 2-5 standard drinks), and this may discourage some clinicians from using them as a tool. However, once developed, e-health interventions are very cheap and cost effective and even small reductions may be meaningful. Second, most e-health interventions are fully automated and self-directed. Thus, they rely on the user to be engaged and motivated to use the interventions. Finally, the main concern for e-health interventions is selecting and determining which interventions are effective. Unfortunately, most e-health interventions with evidence from research are not being made available to non-research populations as researchers may not have the opportunity or resources to make evidence-based e-health intervention available after the trial. This concern is compounded by the fact that the most alcohol related smartphone applications available for download focus a) on facilitating dinking (instead of reducing it), b) use fewer active ingredients than research applications (3 vs 6-9), c) are unlikely to be guided by any specific theory, and d) are inaccurate. Given that the specific interventions we endorse may no longer be supported at the time of publication, we include a section with websites run by researchers and experts who rate e-health interventions based on their effectiveness. These websites are being maintained and new available interventions are expected to be listed.

	RECOMMENDATION	GRADE OF RECOMMENDATION
7.6	E-health interventions with an evidence base should be preferred, given that non-evidence-based resources may be inaccurate or less effective. We recommend using resources like Beacon to identify effective e-health tools.	GPP

BEACON

<https://beacon.anu.edu.au/service/website/browse/23/Alcohol>

Beacon is an Australian website that uses a panel of health experts to categorise, review, and rate websites and mobile applications e-health tools (applications and websites) used for health behaviours. Beacon publishes these reviews on their website along with information about the intervention and the link to the intervention website. The rating system is very easy to use for both clinicians and consumers, and evidence is ranked from “there is no evidence currently”, “the evidence suggests the site doesn’t work” up to “sign up”. There is currently one alcohol intervention that is highly rated on this site.

PSYBERGUIDE

<https://psyberguide.org/apps/>

Psyberguide uses a similar process to Beacon. However, they currently have very few applications for substance use. The Credibility Score represents the strength of the scientific research support for the app itself, and the therapeutic interventions the app provides.

HEAD TO HEALTH

<https://headtohealth.gov.au/search-resources>

Head to health focuses more on resources and does not rate specific e-health interventions. They break down resources into 1) head to health information pages, 2) external websites, 3) apps and programs (specific resources), 4) forums for peer support, and 5) phone chat and email options. However, they do not currently provide a rating of the e-health interventions hosted on the website.

SUMMARY

One way to reduce consumption levels is to provide a brief in-person intervention in primary care and various other community settings (see [Chapter 6](#)). However, there are several barriers to implementing brief interventions in practice, and thus brief e-health interventions may be an effective alternative when it is not feasible to use a brief intervention. Indeed, as overviewed in this chapter, e-health interventions have a small but significant effect on alcohol use, may have similar short-term benefits to in-person interventions, and are very cost effective.

CHAPTER 8

ALCOHOL WITHDRAWAL

Authors | Paul Haber & Nicholas Lintzeris

ALCOHOL WITHDRAWAL

Alcohol withdrawal is a syndrome occurring in people with longstanding high risk drinking who either stop or substantially decrease alcohol consumption. The symptoms include adrenergic overactivity, central nervous system (CNS) excitation and gastrointestinal disturbance. The risk of withdrawal is greater with higher levels of alcohol use, previous episodes of withdrawal and concurrent health problems including cessation of other drugs. Withdrawal ranges in severity from trivial to life-threatening, tending to greater severity with successive episodes.

Chronic alcohol consumption is associated with neuroadaptive changes that tends to restore equilibrium inducing tolerance to alcohol. There is downregulation of GABA receptors and increased expression of NMDA receptors with production of more glutamate to maintain CNS transmitter homeostasis. Cessation of alcohol use leads to a state of disequilibrium with disinhibition of several neurotransmitter systems. There is increased activity of the adrenergic system as well as glutamate and GABA and these changes account for the clinical features of alcohol withdrawal.

The signs and symptoms of alcohol withdrawal may be grouped into three major classes – autonomic hyperactivity, gastrointestinal, and cognitive and perceptual changes – and may feature uncomplicated or complicated withdrawal (see Table 8.1).

TABLE 8.1: Symptoms of alcohol withdrawal

	AUTONOMIC HYPERACTIVITY	GASTROINTESTINAL FEATURES	COGNITIVE AND PERCEPTUAL CHANGES
Uncomplicated withdrawal features	Sweating Tachycardia Hypertension Tremor Fever (generally <38°C)	Anorexia Nausea Vomiting Dyspepsia Diarrhoea	Poor concentration Anxiety Psychomotor agitation Disturbed sleep, vivid dreams
Severe withdrawal complications	Dehydration and electrolyte disturbances		Seizures Hallucinations or perceptual disturbances (visual, tactile, auditory) Delirium

ONSET AND DURATION OF WITHDRAWAL SYMPTOMS

Onset of alcohol withdrawal is usually between six and 24 hours after the last drink. In some people with severe alcohol dependence, withdrawal can occur when the blood alcohol level is decreasing, even if the patient is still intoxicated or has consumed alcohol recently; a significant proportion of people with alcohol dependence experience the onset of withdrawal symptoms before the blood alcohol level reaches zero. Patient care should not be decided on based upon blood alcohol level alone. Alcohol withdrawal rating scales can be used to assess the patient's level of alcohol withdrawal symptoms.

While for most people the alcohol withdrawal syndrome is short-lived and inconsequential, in others it increases in severity through the first 48 to 72 hours of abstinence. The patient becomes highly vulnerable to psychological and physiological stress during this time. Psychological symptoms of alcohol withdrawal, including dysphoria, sleep disturbance and anxiety, often persist for several weeks after drinking cessation. Other substance use, medical and psychiatric conditions can affect the onset, severity and duration of alcohol withdrawal. Use of benzodiazepines or other sedatives often delays the onset of withdrawal and diminishes its severity. It also provides guidance on prevention and treatment of Wernicke's encephalopathy in these patients.

SEVERE WITHDRAWAL COMPLICATIONS

Severe withdrawal complications occur in a minority of cases and include seizures, delirium and hallucinations. Early treatment of mild symptoms can prevent progression but many patients only present with established severe withdrawal.

ALCOHOL WITHDRAWAL SEIZURES

Alcohol withdrawal seizures are usually generalised (tonic-clonic) seizures. They occur as blood alcohol levels fall, typically within 6 to 24 hours after the last drink is consumed, and can occur even if the blood alcohol level is high (for example, greater than 20 mmol/L) in people with severe alcohol dependence. (Figure 8.1)

The prevalence of alcohol-withdrawal seizures is estimated at 2 - 9 % of alcohol dependent people. People who have experienced an alcohol withdrawal seizure are more likely to experience further seizures in subsequent alcohol withdrawal episodes. The risk of seizure recurrence within 6 to 12 hours is estimated at between 13 and 24 per cent in untreated patients.

ALCOHOL WITHDRAWAL DELIRIUM

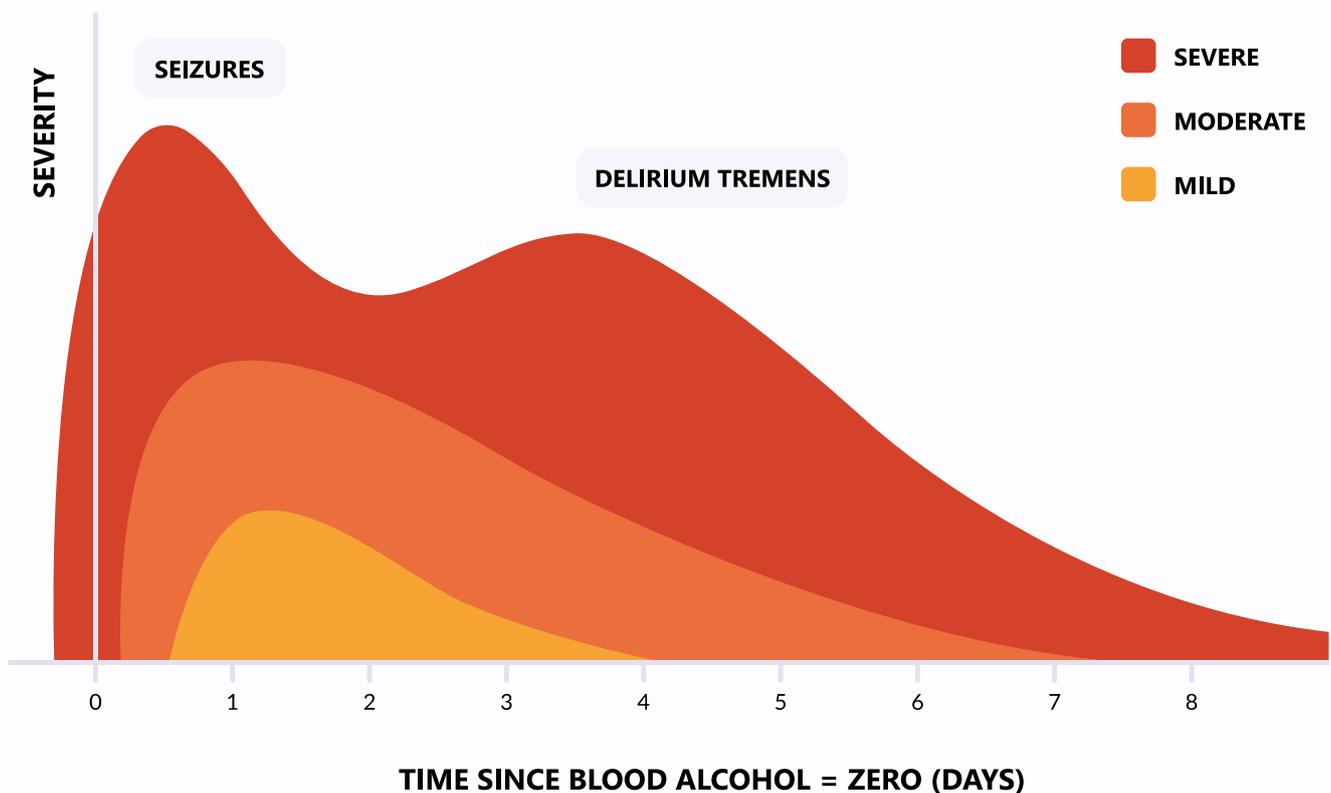
The features of alcohol withdrawal delirium (also known as delirium tremens or DTs) are disturbance of consciousness and changes in cognition or perceptual disturbance. The terms 'alcohol withdrawal delirium' and 'delirium tremens' can be used interchangeably. Alcohol withdrawal delirium is an acute organic brain syndrome characterised by confusion and disorientation, agitation, hyperactivity and tremor.

Alcohol withdrawal delirium typically commences 2 to 3 days after ceasing drinking, and usually lasts for a further 2 to 3 days, although it can persist for weeks. The incidence of alcohol withdrawal delirium in unmedicated alcohol dependent patients averages 5 per cent, although the incidence is much lower with effective treatment of alcohol withdrawal. Early studies of delirium tremens reported mortality rates as high as 15 per cent; however, mortality rates have fallen with advances in management to less than 1 per cent.

HALLUCINATIONS

Some patients experience hallucinations or other perceptual disturbances (for example, misperceptions) at any stage of the alcohol withdrawal phase. Hallucinations may be visual, tactile or auditory, and may be accompanied by paranoid ideation or delusions, and abnormal affect (agitation, anxiety, dysphoria).

FIGURE 8.1: Alcohol withdrawal syndrome progression



ASSESSMENT AND TREATMENT MATCHING

Assessment of patients undergoing alcohol withdrawal requires a comprehensive history, examination, investigations and collateral history (described in [Chapter 3](#)).

The aim is to plan appropriate treatment by establishing the diagnosis, excluding important differentials, assessing severity and understanding patient motivation.

DIFFERENTIAL DIAGNOSIS

Depending on the clinical features, a wide range of conditions should be considered as contributing to the alcohol withdrawal state or entirely explaining the presentation.

- Withdrawal from other drugs particularly benzodiazepines may mimic or accompany alcohol withdrawal.
- Drug intoxication with some stimulants.
- Intracranial disorders including encephalitis, meningitis, head injury and intracranial haemorrhage.
- Metabolic disorders such as hypoglycemia and electrolyte disorders.
- Mental disorders including schizophrenia. Wernicke Korsakoff syndrome should always be considered.

PREDICTORS OF WITHDRAWAL SEVERITY

Given the variability of alcohol withdrawal severity, it is important to monitor all patients carefully during alcohol withdrawal, particularly those at higher risk. Predicting the severity of alcohol withdrawal for an individual patient requires assessment of:

Current drinking patterns. No studies of the minimal level of alcohol consumption needed to produce physical dependence have been undertaken. The severity of withdrawal is only moderately predicted by amounts of alcohol consumed. In general, higher levels of consumption (for example, 150 grams of alcohol per day) is associated with greater withdrawal severity than lower levels of consumption, although people with lower levels of alcohol use (for example, 80–100 grams per day) can experience severe withdrawal and withdrawal complications.

A predictor of increased alcohol withdrawal severity is the onset of alcohol withdrawal symptoms (such as tremor, nausea, anxiety) upon waking that are normally relieved by early morning drinking.

Individuals with heavy but irregular (for example, 2 to 3 days per week) alcohol consumption – sometimes referred to as ‘binge’ drinking – generally do not experience severe withdrawal, although other conditions (such as epilepsy, anxiety) may be ‘unmasked’ in the period following drinking. However, patients may under-report the amount or frequency of their alcohol use. It is wise to manage such people as if they are at risk for alcohol withdrawal.

Past withdrawal experience is usually the best predictor. Patients with a history of severe alcohol withdrawal syndrome (such as severe anxiety, seizures, delirium, hallucinations) are more likely to experience such complications in future withdrawal episodes.

Concomitant substance use. Patients with heavy or regular use of other substances (such as benzodiazepines, stimulants, opiates) may experience more severe withdrawal features. In particular, withdrawal from both alcohol and benzodiazepines may increase the risk of withdrawal complications.

Concomitant medical or psychiatric conditions. Patients with concomitant medical conditions (such as sepsis, epilepsy, severe hepatic disease, head injury, pain, nutritional depletion) or psychiatric conditions (such as anxiety, psychosis or depression) are more likely to experience severe withdrawal complications.

	RECOMMENDATION	GRADE OF RECOMMENDATION
8.1	The risk of severe alcohol withdrawal should be assessed based on current drinking patterns, past withdrawal experience, concomitant substance use, and concomitant medical or psychiatric conditions.	B

OBJECTIVES OF ALCOHOL WITHDRAWAL SERVICES

Research suggests that withdrawal treatment alone has little, if any, impact on long-term alcohol use. Withdrawal management should not be seen as a stand-alone treatment that is likely to result in prolonged periods of abstinence, but instead as a transitional step on the long road to abstinence. Unfortunately, many patients, families, friends, and health and welfare professionals hold unrealistic expectations about the outcomes of withdrawal services. Many are disappointed when people in these programs either cannot entirely give up drinking, or recommence regular drinking soon after a withdrawal attempt.

Alcohol withdrawal may be planned (an individual voluntarily presenting for treatment), or unplanned (following unintended discontinuation of alcohol use for example, hospitalisation or incarceration). Unplanned withdrawal tends to be most severe.

A realistic set of objectives for withdrawal services is as follows:

- *To interrupt a pattern of heavy and regular alcohol use.* Some people require the structure and support of withdrawal services in order to stop drinking. While many people have a longer-term goal of achieving abstinence, others may be seeking a temporary break from their alcohol use.
- *To alleviate withdrawal symptoms.* Relief of the discomfort of alcohol withdrawal symptoms is an important reason for patients presenting for treatment, and one of the primary aims of withdrawal services.
- *To prevent severe withdrawal complications.* Management of alcohol withdrawal aims to prevent or manage potentially life-threatening complications such as seizures, delirium and Wernicke’s encephalopathy. Furthermore, alcohol withdrawal can complicate concomitant medical or psychiatric conditions.
- *To facilitate links to ongoing treatment for alcohol dependence or other alcohol-related disorders.* Alcohol dependence is a chronic relapsing condition, and positive long-term outcomes are more often associated with participation in ongoing treatment such as counselling, self-help residential rehabilitation and pharmacological (see [Chapters 6](#), [Chapter 9](#) and [Chapter 10](#)). Managed withdrawal provides an opportunity to plan and engage in post-withdrawal treatment services. It may also support treatment of associated medical disorders (see [Chapter 22](#)) such as poorly controlled hypertension, abnormal liver function tests (LFTs), poor glycaemic control in diabetic, mental disorders (see [Chapter 21](#)), and assist investigation of cognitive decline/early dementia ([Chapter 19](#)).
- *To facilitate treatment of other disorders.* Withdrawal may be planned to prepare for elective surgery, or treatment of cancer or other disorders unrelated to alcohol use.

- *To get help with any other problems.* While some people will be unwilling or unable to continue in ongoing drug treatment programs, they may benefit from establishing links with primary or specialist health services or welfare services (for example, accommodation, employment services).

	RECOMMENDATION	GRADE OF RECOMMENDATION
8.2	Successful completion of alcohol withdrawal does not prevent recurrent alcohol consumption and additional interventions are needed to achieve long-term reduction in alcohol consumption.	A
8.3	Realistic goals of clinicians, patients and their carers for withdrawal services include: interrupting a pattern of heavy and regular alcohol use, alleviating withdrawal symptoms, preventing severe withdrawal complications, facilitating links to ongoing treatment for alcohol dependence including pharmacotherapy, providing help with any other problems (such as accommodation, employment services).	D

SETTINGS FOR ALCOHOL WITHDRAWAL

Alcohol withdrawal management can occur in a variety of settings, ranging from hospital inpatient, community residential (specialised detoxification units) to ambulatory services (outpatient or home-based detoxification services).

TABLE 8.2: Characteristics of ambulatory, residential and inpatient hospital withdrawal settings

Ambulatory withdrawal	Occur in the person's 'home' environment or well supported accommodation. Also known as outpatient or home-based detoxification services. Requires: no history of severe withdrawal complications (seizures, delirium, hallucinations) or significant medical or psychiatric comorbidity a safe, alcohol-free environment reliable support 'lay' people that can regularly monitor (at least daily during the first 3 or 4 days) and support the patient regular monitoring by a suitably skilled health professional (such as alcohol and drug worker, nursing or medical professional). Daily review (face-to-face, telephone) for first 3 or 4 days medication should be closely supervised (for example, daily supplies). Benzodiazepines to be withheld if the patient resumes alcohol use. patient should have access to 24-hour telephone 'crisis' support.
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Ambulatory withdrawal has the advantage of no 'waiting lists'; nevertheless, it requires planning and mobilisation of the appropriate supports and services. Lower completion rates are generally reported than for residential withdrawal management, but patients who stop drinking at home may be better equipped for continuing abstinence.

Community residential

Residential (non-hospital) units exist in a number of urban and regional centres. They typically:

- provide medical, nursing and support services for managing withdrawal, and facilitate post-withdrawal treatment options;
- allow for 7 to 10 day admissions;
- are for people: (a) with moderate alcohol withdrawal without a history of withdrawal complications (seizures, delirium, hallucinations); (b) withdrawing from multiple drugs; (c) unsuitable 'home' environment for attempting ambulatory withdrawal; or (d) for those that have repeatedly failed ambulatory withdrawal;
- are unable to treat patients with significant medical or psychiatric comorbidity who require hospitalisation;
- often have waiting lists for admission;
- have higher completion rates than for ambulatory withdrawal.

Inpatient hospital

General or psychiatric hospital admissions are required for people with significant medical (such as trauma or delirium) or psychiatric (such as psychosis, high-risk suicidal) conditions, or when the diagnosis is unclear (for example, seizures that require investigation). Further, many patients hospitalised for medical or surgical conditions will experience unplanned and often severe withdrawal.

High dependency unit or intensive care unit admission may be required for complex and seriously ill patients.

In some circumstances, patients may be able to 'step-down' to less intensive settings to complete withdrawal once medically stable.

Specialist Addiction Medicine service (as the admitting specialist or via a consultation liaison model) should be accessible to manage inpatient post-discharge care.

SELECTING WITHDRAWAL SETTINGS

The choice of withdrawal setting requires a comprehensive clinical assessment and discussion with the patient (and where possible family or carers) about the advantages and disadvantages of each approach. Factors to be considered in determining the most appropriate withdrawal setting for an individual include:

- likely severity of alcohol withdrawal and risk of severe withdrawal complications (seizures, delirium, hallucinations);

- use of other substances: people who report heavy use of other drugs (such as benzodiazepines, psychostimulants, opiates) may be at increased risk of withdrawal complications and generally need close monitoring and supervision (usually an inpatient unit);
- patients with significant comorbidity may need hospital admission until medically cleared. Patients may be able to ‘step-down’ to less intensive withdrawal settings to complete withdrawal once medically stable and reduce length of stay in hospital.
- social circumstances, the availability of a safe environment and ‘home’ supports;
- outcome of prior withdrawal attempts: repeated failure at ambulatory withdrawal may indicate the need for referral to a residential detoxification unit;
- patient preference and availability of resources.

TABLE 8.3: A summary of the admission criteria for different withdrawal settings.

	AMBULATORY	COMMUNITY RESIDENTIAL	INPATIENT HOSPITAL
Predicted alcohol withdrawal severity	Mild–moderate	Moderate–severe	Moderate–severe
Likelihood of severe withdrawal complications	No	Withdrawal complications not expected	Withdrawal complications (delirium, seizures)
Medical or psychiatric comorbidity	None or minor comorbidity	Minor comorbidity	Significant comorbidity
Other substance use	No heavy drug use	Heavy or unstable use of other drugs	Heavy or unstable use of other drugs
Social environment	<ul style="list-style-type: none"> • Stable housing that is alcohol-free • Daily monitoring by reliable support people • Good access to health care service 	Home environment support insufficient	Unsupportive home environment
Previous attempts	None or few attempts at ambulatory withdrawal	Repeated failure at ambulatory withdrawal	Previously required hospitalisation

Some patients wish to attempt ambulatory withdrawal despite multiple failed previous attempts. Further attempts at outpatient withdrawal may be appropriate, if safety concerns are not evident. Clinicians should identify how this attempt will be different to previous attempts (for example, increased home supports and monitoring; closer engagement with ongoing care), and negotiate with the patient mutually agreed criteria to be met in order to continue with the withdrawal attempt (for example, no alcohol use in first 2 days). Consider whether there is cognitive impairment that may impact on decision making ([Chapter 19](#)).

Patients on waiting lists for residential withdrawal units may need support to maintain motivation and avoid high-risk activities until admission. Care is required to minimise treatment delay for high risk patients.

It is not recommended that benzodiazepines be prescribed in an attempt to alleviate withdrawal symptoms before admission as this may increase the risk of adverse events from the combination of alcohol and benzodiazepines.

	RECOMMENDATION	GRADE OF RECOMMENDATION
8.4	Ambulatory withdrawal is appropriate for those with mild to moderate predicted withdrawal severity, a safe 'home' environment and social supports, no history of severe withdrawal complications, and no severe concomitant medical, psychiatric or other substance use disorders.	B
8.5	Community residential withdrawal is appropriate for those with predicted moderate to severe withdrawal, a history of severe withdrawal complications, withdrawing from multiple substances, no safe environment or social supports, repeated failed ambulatory withdrawal attempts, and with no severe medical or psychiatric co-morbidity.	B
8.6	Inpatient hospital treatment is appropriate for those with severe withdrawal complications (e.g. delirium or seizures of unknown cause), and/or severe medical or psychiatric co-morbidity	GPP

MONITORING DURING ALCOHOL WITHDRAWAL

All patients in alcohol withdrawal, or who are considered at risk of alcohol withdrawal, should be monitored regularly for:

- *Blood or breath alcohol level.* Breathalyser devices are widely used in withdrawal units to confirm diagnosis of alcohol use, to identify evolving withdrawal risk and safety to use benzodiazepines. Generally, benzodiazepine dosing is not commenced until the blood alcohol concentration (BAC) below 0.05% (approximately 10 mmol/L).

- *Physical signs.* This includes level of hydration, pulse rate, blood pressure, temperature, mental state and level of consciousness (especially if medicated).
- *Severity of alcohol withdrawal.* It is usually beneficial to use an alcohol withdrawal rating scale to assess the severity of withdrawal, to guide treatment, and to help clinicians communicate more objectively about the severity and management of alcohol withdrawal. Alcohol withdrawal scales are described below; see [Appendix](#) for the instruments.
- *General progress during withdrawal episode.* This includes ongoing level of motivation, alcohol and other drug use during ambulatory withdrawal (breathalyser readings and/or urine drug screens may be clinically indicated), response to any medication(s), and patient concerns or difficulties.

CLINICAL INSTITUTE WITHDRAWAL ASSESSMENT FOR ALCOHOL

The Clinical Institute Withdrawal Assessment for Alcohol (CIWA-Ar) revised is a 10-item, validated scale designed for use by trained inpatient nurses. CIWA-Ar scores below 10 are considered mild withdrawal; between 10 and 20 are moderate withdrawal, and above 20 are considered severe withdrawal. Patients with CIWA-Ar scores of more than 10 are considered to be at high risk of developing withdrawal complications if not medicated.

Frequency of CIWA-Ar monitoring depends upon treatment setting and clinical condition of the patient. Patients with CIWA-Ar scores of more than 10 need frequent monitoring (at least 4 hourly), and patients with severe withdrawal (CIWA-Ar score of more than 20) should be monitored every 1-2 hours.

ALCOHOL WITHDRAWAL SYMPTOMS – RATING SCALE

An alternative scale is the Alcohol Withdrawal Symptoms – Rating Scale (or Alcohol Withdrawal Scale, AWS) (see [Appendix](#)). Validation of the AWS has not been published; however it has been widely used in Australian conditions and is considered acceptable for use. An AWS score of up to 4 indicates mild withdrawal, 5 to 7 moderate withdrawal, 8 to 14 severe withdrawal, and 15 or more very severe withdrawal. Close monitoring is advised at least every 4 hours for those with mild withdrawal, and every 1-2 hours for severe withdrawal.

SHORT ALCOHOL WITHDRAWAL SCALE

The Short Alcohol Withdrawal Scale (SAWS) is a self-completion scale used once a day, and is suited to ambulatory withdrawal settings (see [Appendix](#)).

There are a number of other validated scales that may be used according to local preference.

LIMITATIONS OF WITHDRAWAL SCALES

Scoring of alcohol withdrawal scales is typically highly variable in clinical practice and often

not reproducible; clinicians should review scores before making management decisions. Staff training is required to yield more reproducible scores. Limit the duration of use to 48-72 hours unless there is ongoing withdrawal.

Alcohol withdrawal rating scales are not to be used as diagnostic tools as many other conditions may produce similar signs and symptoms, for example:

- medical conditions (such as sepsis, hepatic encephalopathy, severe pain, other causes of tremor)
- psychiatric conditions (such as anxiety disorder)
- other drug withdrawal syndromes (such as benzodiazepine, stimulant or opiate withdrawal).

Using alcohol withdrawal rating scales in these cases can lead to inappropriate diagnosis of alcohol withdrawal or its severity.

Withdrawal scales should not be used to direct medication (as for example, in symptom-triggered regimens) in patients with these conditions, including most hospitalised patients. Alcohol withdrawal scales have a limited role under these circumstances, and health professionals should consult a specialist drug and alcohol clinician about monitoring and management needs.

The scale can be safely discontinued after benzodiazepine treatment has stopped and the scores fall to zero for 24 hours.

	RECOMMENDATION	GRADE OF RECOMMENDATION
8.7	Patients withdrawing from alcohol should be regularly monitored for physical signs, severity of alcohol withdrawal and general progress during withdrawal.	GPP
8.8	Alcohol withdrawal scales (CIWA-Ar, AWS) can be used to assess withdrawal severity, to guide treatment and for communication between clinicians; These scales are not validated diagnostic tools.	A
8.9	Scores on alcohol withdrawal scales are not always reproducible and should be checked before using them to make management decisions.	GPP
8.10	Alcohol withdrawal scales should not be used to guide treatment in individuals concurrently withdrawing from other substances, or with significant medical or psychiatric co-morbidity. Addiction medicine consultation is recommended in this setting regarding monitoring and management.	B

SUPPORTIVE CARE

Supportive care includes provision of sufficient information to patients (and carers); an environment and support that is conducive to recovery; supportive counselling; adequate diet, nutrition (including supplements) and rehydration; encouragement to develop appropriate sleep and relaxation habits; and facilitation of links to other services.

Patient information

Patients (and carers) generally benefit from information about:

- the likely nature, severity and duration of symptoms during withdrawal
- strategies for coping with symptoms and cravings
- strategies to reduce high-risk situations
- the role of medication.

Patients often have limited concentration during withdrawal; consequently the clinician may have to repeat or re-phrase information before the patient can fully understand. Written information is valuable in these circumstances, and is also recommended for carers supporting patients through withdrawal. Examples of patient information are in the [Appendix](#).

	RECOMMENDATION	GRADE OF RECOMMENDATION
8.11	Patients (and carers) should be provided with information about the likely nature and course of alcohol withdrawal, and strategies to cope with common symptoms and cravings.	C

ENVIRONMENT AND SUPPORT

Patients attempting alcohol withdrawal should be in an environment that is quiet, non-stimulating, and non-threatening, and where alcohol and other drugs are not readily available. Hospital admission is indicated for delirium or where withdrawal cannot be managed safely otherwise. A range of strategies should be used to reduce anxiety, and these are particularly important for those experiencing withdrawal delirium or hallucinations. Such strategies should include:

- employing a slow, steady, non-threatening approach
- explaining all interventions clearly
- speaking slowly and distinctly in a friendly manner
- maintaining eye contact when speaking
- avoiding confrontation and arguments
- testing the patient's reality-base and orientation repeatedly and, if necessary, re-acquainting the patient with their environment

- explaining to the patient that the unreal nature of illusions and hallucinations may cause anxiety and are likely to be part of the alcohol withdrawal syndrome
- recommending a night light to reduce the likelihood of perceptual errors and exacerbation of anxiety and psychotic phenomena during the night.

	RECOMMENDATION	GRADE OF RECOMMENDATION
8.12	Treatment environment should be quiet, non-stimulating, and non-threatening, and where alcohol and other drugs are not available.	GPP

SUPPORTIVE COUNSELLING

Counselling during the withdrawal episode should be aimed specifically at supporting the patient through withdrawal symptoms, maintaining motivation, and facilitating post-withdrawal links.

An important area is that of coping with cravings during withdrawal. One recommended approach particularly suitable for ambulatory withdrawal management is the Three-D method – Delay, Distract and Desist – see Box 8.1

Crisis intervention may be needed during a withdrawal episode to address adequate accommodation, food or other urgent welfare issues. Many patients will want to address a range of personal, emotional or relationship problems at the start of treatment; however, these should be deferred until after withdrawal as:

- attempting to work through such issues will almost certainly be anxiety provoking, which merely intensifies cravings and jeopardises withdrawal completion.
- people in withdrawal tend to be irritable, agitated and run-down – not the optimal frame of mind in which to solve major long-standing problems.
- medications to manage withdrawal (typically diazepam) impair cognitive function and cause drowsiness.

Assure your patients that you understand that they have important issues they want to work through, explain why they are being deferred, and that there will be opportunities to address them as part of ongoing treatment after withdrawal.

Many patients undergoing ambulatory withdrawal may also benefit from 24-hour telephone counselling services for help when health professionals or regular supports are unavailable. Each state in Australia has telephone alcohol and drug services (see [Appendix 6](#)).

	RECOMMENDATION	GRADE OF EVIDENCE
8.13	Supportive counselling should be provided to maintain motivation, provide strategies for coping with symptoms, and reduce high risk situations, tailored to mental state of the client during withdrawal.	D

FACILITATING LINKS WITH OTHER SERVICES FOR FURTHER TREATMENT AND SUPPORT

A focus of counselling strategies during withdrawal is examining post-withdrawal treatment options, and facilitating engagement with these services. This may include:

- primary care
- counselling (for example, relapse prevention)
- residential rehabilitation
- self-help
- medications for relapse prevention.

	RECOMMENDATION	GRADE OF RECOMMENDATION
8.14	Clinicians should facilitate links to post-withdrawal treatment services during withdrawal treatment.	D

BOX 8.1: COPING WITH CRAVINGS

‘Cravings’ are urges to drink alcohol. They are a normal part of any addiction and withdrawal. Cravings vary in intensity with time, and are only severe for short periods (for example, less than one hour). Cravings are often triggered by opportunities to drink, physical or psychological discomfort. Cravings generally get easier to deal with the longer a person goes without drinking.

It is important that patients are prepared for cravings. The goal is to see through the brief period of severe craving. The Three-D method has been successful for many people when they are experiencing severe cravings, specifically:

- Delay the decision as to whether you will drink for one hour. You may or may not drink, but that is something to be decided later (when the severity of the craving has reduced).
- Distract yourself with an activity during this hour that will take your mind off whether you will drink or not.

- **Desist:** After the hour, say to yourself: ‘Why I don’t want to drink’ and ‘What have I got to lose?’

By this stage the craving should have settled down – although probably not gone away. The patient should re-examine the reasons they want to stop drinking, why they are trying to withdraw, and importantly, what they will be returning to if they start drinking again. Diet, nutrition and rehydration

Many people with chronic heavy alcohol use suffer from nutritional deficits, and can become dehydrated during alcohol withdrawal. Patients should be assessed for dehydration, and their fluid intake and output monitored. Oral fluid intake is generally preferred, usually in excess of 2 litres per day (up to 5 litres if the patient is suffering diarrhoea, nausea or profuse sweating). Patients with severe dehydration and/or those unable to tolerate oral fluids will require hospitalisation, investigation and correction of electrolyte abnormalities intravenous fluid replacement and 24-hour fluid monitoring.

Magnesium is an important cofactor for thiamine absorption and function and is often deficient in people with alcohol use disorder (AUD) presenting to the Emergency Department. Recent evidence indicates an association between magnesium deficiency and increased mortality. Accordingly, it appears appropriate to offer magnesium supplementation in this setting, but no direct evidence of benefit has been reported to date.

Patient’s nutritional intake should be monitored. Many experience nausea and/or diarrhoea during withdrawal, and frequent, light meals are generally better tolerated in the first few days of withdrawal than infrequent, large meals (see ‘Intravenous fluids and nutritional supplements’ below).

	RECOMMENDATION	GRADE OF RECOMMENDATION
8.15	Clinicians should ensure oral rehydration is adequate. Intravenous fluids may be necessary in severe dehydration and/or in those not tolerating oral fluids.	GPP
8.16	Magnesium levels should be check on hospital admission and replaced if deficiency identified.	GPP

THIAMINE AND OTHER SUPPLEMENTS

Thiamine supplements are recommended for all people undergoing alcohol withdrawal (see ‘Wernicke–Korsakoff’s syndrome’ below). For patients with no clinical features of Wernicke’s encephalopathy or memory impairment, thiamine is recommended as a prophylactic measure. The evidence base to guide dosing is limited with no new trials in recent years.

The dose, route and duration of thiamine administration depend on the patient's nutritional status. For example, healthy patients with good dietary intake may be administered oral thiamine 300 mg per day (100 mg three times daily for 3 to 5 days, and maintained on 100 mg oral thiamine for a further 4 to 9 days (for a total of 1 to 2 weeks of oral thiamine). Intestinal absorption of oral thiamine supplements is slow and may be incomplete in patients with poor nutritional status, hence:

- People with chronic alcohol use with poor dietary intake and general poor nutritional state should be administered parenteral thiamine doses. The recommended dose of thiamine is 300 mg intramuscularly or intravenously per day for several days, and subsequent oral thiamine doses of 300 mg per day for several weeks.
- Alcohol is associated with thrombocytopenia and coagulopathy that may render intramuscular injection unsafe.

Parenteral carbohydrates can cause rapid utilisation of thiamine in peripheral tissues and precipitate Wernicke's encephalopathy (WE).

- Thiamine (oral or intramuscular) should be given before any carbohydrate load (for example, intravenous glucose) when feasible or otherwise as soon as possible.

Deficiencies of other B-complex vitamins, vitamin C, zinc and magnesium are not uncommon and an oral multivitamin preparation can be given to nutritionally depleted patients for several days. Consider parenteral magnesium replacement when IV thiamine is used as described above. Oral thiamine supplementation should be continued indefinitely in an alcohol dependent patient who continues to drink alcohol.

	RECOMMENDATION	GRADE OF RECOMMENDATION
8.17	Thiamine should be provided to all patients undergoing alcohol withdrawal to prevent Wernicke's Encephalopathy	D
8.18	Thiamine should normally be given BEFORE any carbohydrate load (e.g. IV glucose) as carbohydrates can cause rapid utilization or depletion of thiamine and precipitate WE.	D
8.19	Healthy patients with good dietary intake should be administered oral thiamine 300mg per day for 3 to 5 days, and maintained on 100mg oral thiamine for a further 4 to 9 days (total of 1 -2 weeks of thiamine).	D
8.20	People with chronic alcohol use with poor dietary intake and general poor nutritional state should be administered parenteral (IM or IV) thiamine doses of 300mg per day for several days, with subsequent oral thiamine doses of 300mg per day for several weeks.	D

	RECOMMENDATION	GRADE OF RECOMMENDATION
	Thiamine supplementation should be continued indefinitely in an alcohol dependent patient who continues to drink alcohol.	GPP
8.21	For symptomatic or suspected Wernicke's encephalopathy, higher doses (500mg tds) are recommended initially, guided by progress and specialist addiction medicine or neurological advice.	GPP

SLEEP AND RELAXATION

Sleep disturbance is common among people with heavy alcohol use. Many patients have poor sleep behaviours, and often have a history of relying on alcohol or sedatives to initiate sleep. While medication such as benzodiazepines can facilitate sleep during the first few days of withdrawal, long-term use of benzodiazepines or other sedatives for sleep following alcohol withdrawal (more than one week) is discouraged due to lack of effectiveness and harms. Most patients find that normal sleep routine can be established within weeks of stopping alcohol use, and appropriate sleep behaviours should be encouraged. If not, evaluation for other causes for sleep disturbance should be considered such as obstructive sleep apnoea. Patient literature about sleep and relaxation techniques (see [Appendix](#)) should be provided.

Likewise, many patients experience difficulties with anxiety, irritability and even panic attacks during and after alcohol withdrawal. Benzodiazepines or other sedatives have a limited role, and behavioural approaches to relaxation and evidence-based approaches to anxiety management should be encouraged.

	RECOMMENDATION	GRADE OF RECOMMENDATION
8.22	Sedatives (such as benzodiazepines) should not be continued beyond the first week of withdrawal. Behavioural approaches to management of anxiety and sleep problems should be encouraged in the first instance.	D

MEDICATIONS FOR MANAGING ALCOHOL WITHDRAWAL

Most people attempting alcohol withdrawal will not experience severe withdrawal symptoms or withdrawal complications (such as seizures or delirium) that require medication. Nevertheless, medication is often used to assist alcohol withdrawal as:

- it can be difficult to predict whether a particular individual will experience severe withdrawal
- there is significant morbidity and mortality associated with untreated withdrawal complications of delirium and seizures
- outcomes such as rates of withdrawal completion and symptom relief are enhanced with the use of medication
- withdrawal medication (particularly benzodiazepines) is simple to use, effective, inexpensive and has minimal adverse events.

BENZODIAZEPINES

Benzodiazepines are anti-anxiety and sedative-hypnotic medications that enhance gamma-amino butyric acid (GABA) activity in the central nervous system. A wide variety of benzodiazepines have been used for alcohol withdrawal. In general, long-acting benzodiazepines with a rapid onset of action (particularly important in seizure prophylaxis) are most commonly recommended.

Diazepam is the benzodiazepine of choice. Diazepam is well absorbed orally, has a rapid onset of action (within one hour), and has prolonged duration of effects (up to several days), important in preventing symptom recurrence between doses. Chlordiazepoxide, a long-acting and rapid-onset benzodiazepine, is widely used internationally but is not registered in Australia.

In certain clinical circumstances, long-acting benzodiazepines such as diazepam may be problematic. Shorter acting benzodiazepines (such as midazolam, lorazepam, oxazepam) should be used where there is concern about prolonged sedation, such as in the elderly, recent head injury, liver failure, respiratory failure, other serious medical illness or in severely obese patients (due to accumulation of lipophilic diazepam and active metabolites). Short acting benzodiazepines have a simpler hepatic metabolism (conjugation that is less affected by liver disease or aging) without active metabolites, and can be more easily discontinued in the event of clinical deterioration such as head injury.

- Lorazepam is the preferred benzodiazepine under these circumstances as it has rapid onset after oral administration (within 2 hours) and has short to medium duration of action (half life of 10 to 20 hours); 2 mg oral lorazepam is equipotent to 10 mg oral diazepam.
- Oxazepam has also been used in Australia under these circumstances (onset of action within 2 hours, half-life of 5 to 10 hours); 15 to 30 mg oxazepam is approximately equipotent to 5 mg diazepam.
- Midazolam by intravenous bolus or infusion is preferred where rapid, but easily reversible, sedation is required (for example, in patient with recent seizure and with suspected head injury). It is used in acute care settings such as Emergency Departments or Intensive care units.

	RECOMMENDATION	GRADE OF RECOMMENDATION
8.23	Benzodiazepines are the recommended medication in managing alcohol withdrawal. In Australia, diazepam is recommended as first-line treatment because of its rapid onset of action, long half-life and evidence for effectiveness.	A
8.24	Shorter-acting benzodiazepines (lorazepam, oxazepam, midazolam) may be indicated where the clinician is concerned about accumulation and over sedation from diazepam, such as in the elderly, severe liver disease, recent head injury, respiratory failure, in obese patients, or where the diagnosis is unclear.	D
8.25	Benzodiazepines should not be continued beyond the first week for managing alcohol withdrawal due to the risk of rebound phenomenon and dependence.	D

The three most commonly used benzodiazepine regimens are symptom-triggered therapy, loading dose therapy and fixed-schedule therapy. Figure 8.2 shows a schematic for use of the different benzodiazepine regimens. In practice, hybrid regimens that combine these approaches are commonly used.

SYMPTOM TRIGGERED THERAPY

Symptom triggered therapy administers medication only when the patient develops moderate alcohol withdrawal symptoms, and relies upon linking medication (for example, diazepam doses) with scores on a frequently administered withdrawal scale (such as CIWAAr or AWS; Table 8.4 shows an example of a symptom-triggered regimen). Symptom triggered regimens have the advantage of better tailoring medication to the needs of individuals, and have been shown – in specialist residential detoxification settings – to result in less benzodiazepine use than fixed-dose regimens. However, symptom-triggered regimens:

- are generally not suited to ambulatory withdrawal settings; they require a residential withdrawal setting
- should not be used in patients with a history of withdrawal seizures, as seizures may occur before the onset of other withdrawal features
- should not be used in patients with heavy use of other drugs or significant concomitant medical or psychiatric conditions that may invalidate use of withdrawal scales (see ‘Limitations of withdrawal scales’ above); this will include many people undergoing alcohol withdrawal in general or psychiatric hospital settings

- require good protocol adherence, including regular patient monitoring by staff trained in the use of scales and symptom triggered regimens. Where this cannot be guaranteed, a fixed regimen is preferable.

TABLE 8.4: Summarises the admission criteria for different withdrawal settings.

	FREQUENCY OF MONITORING	AWS	CIWA-AR	ORAL DIAZEPAM DOSE USING A SYMPTOM-TRIGGERED REGIMEN*
Mild	< 10	< 4	6 hourly	No dose required
Moderate	10 - 20	4 - 7	4 hourly	5 - 10 mg
Severe	> 20	> 7	1 - 2 hourly	20 mg

Note: * Some patients have low tolerance of withdrawal symptoms and may need additional doses of diazepam (for example, 5 to 10 mg) or other symptomatic medication on an as-needed basis. CIWA-Ar – Clinical Institute Withdrawal Assessment for Alcohol Scale; AWS – Alcohol Withdrawal Symptoms – Rating Scale

The typical duration of diazepam treatment is 1 to 2 days. More prolonged treatment is needed for unusually severe withdrawal but the possibility of benzodiazepine dependence and/or mental comorbidity should be considered; both are common. Excessively prolonged therapy can also contribute to sedation, drug-induced delirium, and extended hospitalisation.

	RECOMMENDATION	GRADE OF RECOMMENDATION
8.26	Diazepam should be administered in a symptom-triggered regimen for mild to moderate withdrawal in residential withdrawal settings for people with no concomitant medical, psychiatric or substance use disorders.	B

LOADING DOSE THERAPY

Loading dose regimens (also called ‘front-loading’) quickly administer high doses of benzodiazepines in the early stages of alcohol withdrawal and are indicated in:

- patients with a history of severe withdrawal complications (seizures, delirium)
- patients presenting in severe alcohol withdrawal and/or severe withdrawal complications (delirium, hallucinations, or following an alcohol withdrawal seizure).

A common diazepam-loading regimen under these circumstances is 10- 20 mg orally every 1- 2 hours (eg 10 mg hourly) until 60–80 mg is reached or the patient is sedated. Medical review should occur if the patient remains agitated after 80 mg or 4 hours. Other causes of agitation should be excluded, and if so, further doses of diazepam may be needed. Specialist advice should be sought if necessary. Doses over 120 mg should only be given after specialist review to confirm diagnosis, exclude complications and consider alternatives.

The dose of 80 mg diazepam will have significant sedative effects for several days, and this is generally sufficient to prevent severe withdrawal from occurring during the remainder of the withdrawal episode. While no further doses of diazepam may be needed, it is common for further doses of diazepam to be administered over the subsequent 2 to 3 days for symptomatic relief, as either a fixed reducing regimen (for example, 10 mg four times a day on day 2, 10 mg twice a day on day 3, 5 mg twice a day on day 4); or as required (for example, 5 to 10 mg 6 hourly as needed, based on clinical observation or alcohol withdrawal scale scores).

	RECOMMENDATION	GRADE OF RECOMMENDATION
8.27	Diazepam should be administered in a loading regimen (20 mg 2 hourly until 60 to 80 mg or light sedation) in patients with a history of severe withdrawal complications (seizures, delirium); in patients presenting in severe alcohol withdrawal and/or severe withdrawal complications (delirium, hallucinations, following withdrawal seizure).	B

FIXED-SCHEDULE THERAPY

Benzodiazepines given at fixed dosing intervals are a common therapy for alcohol withdrawal management, and are well suited to ambulatory withdrawal, community residential and inpatient withdrawal settings. Fixed schedules are also appropriate for complex hospitalised patients, ideally with daily review by specialist drug and alcohol clinicians. Fixed schedule regimens typically involve reducing doses over a 3 to 6 day period, and require regular clinical review (minimum of daily) to ensure the patient is not over or under-medicated (Table 8.5 provides an example of a fixed-schedule regimen). Fixed schedule regimens may be supplemented with additional diazepam as needed for people with low tolerance of withdrawal discomfort (for example, 5 mg 6 hourly as needed, based on clinical observation or alcohol withdrawal scale scores).

Access to diazepam doses should be restricted (for example, daily dispensing) and/or doses supervised by carers for patients undertaking ambulatory withdrawal in order to prevent misuse of medication. Diazepam should not be used if the patient continues to drink alcohol and regular breathalyser readings should be used if in doubt.

TABLE 8.5: Example of fixed-schedule regimen

MODERATE TO SEVERE WITHDRAWAL PREDICTED

*Oral diazepam dose**

Day 1 20 mg four times a day

Day 2 10 mg four times a day

Day 3 10 mg twice a day

Day 4 5 mg twice a day

Day 5 5 mg 12 hourly as needed

MILD WITHDRAWAL PREDICTED (ALSO SUITABLE FOR AMBULATORY ALCOHOL WITHDRAWAL)

*Oral diazepam dose**

Day 1 10 mg four times a day

Day 2 10 mg three times a day

Day 3 10 mg twice a day

Day 4 5 mg twice a day

Day 5 5 mg at night as needed

Note: * In practice, a hybrid approach can be recommended with fixed schedule plus an additional diazepam dose (for example, 5 mg 6 to 12 hourly as needed, based on clinical observation or alcohol withdrawal scale scores).

RECOMMENDATION

GRADE OF RECOMMENDATION

8.28 Diazepam should be administered in a fixed dose regimen in ambulatory settings, or for those with concomitant medical, psychiatric or substance use disorders.

C

FIGURE 8.2: Selecting benzodiazepine regimen for alcohol withdrawal



Note: CIWA-Ar – Clinical Institute Withdrawal Assessment for Alcohol Scale; AWS – Alcohol Withdrawal Symptoms – Rating Scale; QID – four times a day

INDIVIDUALISED DOSING FOR COMPLEX PATIENTS

Two common approaches are described:

- *Fixed dosing plus symptom triggered dosing.* This may be suitable for a hospital inpatient with comorbidities to allow additional dosing if the fixed dosing regimen is insufficient.
- *Initial fixed dosing followed by symptom triggered dosing.* This may be suitable for:
 - a. A patient at risk of complications but where these do not eventuate.
 - b. A patient presenting with anxiety and alcohol withdrawal.

ALTERNATIVE, SYMPTOMATIC AND OTHER MEDICATIONS

Benzodiazepines are considered the first line treatment for alcohol withdrawal management. However, benzodiazepines are not recommended, or need to be used cautiously, in circumstances where they:

- have been used contrary to advice (for example, used in higher doses, used with continued alcohol use); in which case, greater supervision of medication, such as residential withdrawal setting or limit access to benzodiazepines in ambulatory settings, is needed;
- cause paradoxical reactions (such as violence, agitation) or severe alterations in mental status (such as confusion, delirium) in a minority of people; in this case, alternative medication approaches may need to be considered. Such a history, ideally should be verified, and documented.

ANTICONVULSANTS

Carbamazepine (600 to 1200 mg per day) effectively minimises alcohol withdrawal symptoms and prevents alcohol withdrawal seizures, but does not effectively prevent recurrent (further) seizures in a withdrawal episode.

Phenytoin and valproate do not effectively prevent the onset of alcohol withdrawal seizures and are not recommended. The role of other anticonvulsants (such as gabapentin, topiramate) is yet to be demonstrated in controlled studies compared to benzodiazepines, and are not currently recommended.

There appears to be no advantage in adding anticonvulsants to benzodiazepines for preventing alcohol withdrawal seizures.

Patients already prescribed and regularly taking anticonvulsants should continue this medication during withdrawal. Many people with heavy alcohol use have poor adherence to anticonvulsants while drinking, and may be at risk of seizures due to recent cessation of anticonvulsants. Measurement of anticonvulsant plasma levels should be considered before administering anticonvulsants.

See 'Treatment of severe withdrawal complications' for discussion of patient management following alcohol withdrawal seizure, including the role of anticonvulsants in preventing further seizures following withdrawal.

	RECOMMENDATION	GRADE OF RECOMMENDATION
8.29	Carbamazepine is safe and effective as an alternative to benzodiazepines, although it is not effective in preventing further seizures in the same withdrawal episode.	A
8.30	Phenytoin and valproate are not effective in preventing alcohol withdrawal seizures and are not recommended.	A

	RECOMMENDATION	GRADE OF RECOMMENDATION
8.31	Newer anticonvulsant agents (such as gabapentin) are not recommended at this stage due to limited clinical evidence..	D
8.32	There is no benefit in adding anticonvulsants to benzodiazepines to manage alcohol withdrawal..	A
8.33	Anticonvulsant medications should be continued in patients who take them regularly (such as for epilepsy not related to withdrawal).	GPP

ANTIPSYCHOTIC MEDICATIONS

Antipsychotic medication (such as phenothiazines) when used alone may increase seizure risk and do not prevent the onset of delirium. They should only be used in conjunction with benzodiazepines to manage hallucinations or agitation associated with delirium that have not responded to adequate doses of benzodiazepines (for example, at least 60–80 mg diazepam loading).

No controlled trials demonstrating the superiority of different antipsychotic medications exist, and practitioners should use medications with which they are most familiar. Examples of regimens include:

- haloperidol 2.5 to 10 mg oral or intramuscular, repeated as required
- olanzapine 5 to 10 mg oral or buccal dose, repeated as required
- risperidone 1 to 5 mg, oral or intramuscular, twice daily, repeated as required.

	RECOMMENDATION	GRADE OF RECOMMENDATION
8.34	Antipsychotic medications should only be used as an adjunct to adequate benzodiazepine therapy for hallucinations or agitated delirium. They should not be used as stand-alone medication for withdrawal.	A

ANTI-HYPERTENSIVE AGENTS

Elevated blood pressure during alcohol withdrawal is common due to autonomic (adrenergic) hyperactivity. It generally resolves spontaneously following withdrawal, and is usually well managed by adequate doses of benzodiazepines (for example, at least 60 mg of diazepam in the preceding 24 hours). In cases where blood pressure remains markedly elevated (for example, greater than 180 mg systolic, greater than 110 diastolic) on repeated measurements, despite adequate benzodiazepine loading, a beta-blocker (such as atenolol or propranolol) is

recommended, provided there are no contraindications. There are no specific trials to guide this recommendation.

Alcohol use disorder is associated with hypertension that often remits with reduction or cessation of alcohol use. Accordingly, elevated blood pressure should be monitored after completion of withdrawal and maintaining control of hypertension may be a motivator to reduce alcohol use. Persisting hypertension should be managed according to current guidelines.

	RECOMMENDATION	GRADE OF RECOMMENDATION
8.35	Antihypertensive agents (typically beta-blockers) should be used for managing significant hypertension accompanying alcohol withdrawal that has not responded to adequate doses of diazepam provided there are no contraindications to their use.	D
8.36	Blood pressure should be monitored after completion of withdrawal due to the association of alcohol use disorder with persisting hypertension.	A

SYMPTOMATIC MEDICATION

A range of medications is commonly used to manage various symptoms of alcohol withdrawal, despite the absence of an empirical evidence base. Examples include:

- paracetamol up to 1 gram twice a day as needed for headache
- anti-emetics for nausea (for example, metoclopramide 10 mg 6 hourly as needed, and prochlorperazine 5 mg oral or intramuscular 6 hourly)
- loperamide or electrolyte solution for diarrhoea
- antacid such as Gaviscon

	RECOMMENDATION	GRADE OF RECOMMENDATION
8.37	A range of symptomatic medications may be used for addressing specific symptoms (such as paracetamol for headache, anti-emetics, anti-diarrhoeal agents).	D

OTHER MEDICATIONS

Chlormethiazole is a short-acting sedative and anticonvulsant medication that was widely used for treating alcohol withdrawal before the advent of benzodiazepines. It is no longer recommended for managing alcohol withdrawal due to its risk of respiratory depression and death in overdose or in combination with alcohol or other sedatives.

Alcohol (ethanol), gamma-hydroxybutyric acid (GHB), barbiturates, beta-blockers, clonidine, or magnesium infusions have no role in managing alcohol withdrawal.

Baclofen, a GABA-B receptor agonist, used in clinical practice as a skeletal muscle relaxant, has been shown to suppress symptoms of alcohol withdrawal in preliminary clinical studies. There is no evidence to suggest it is superior to benzodiazepines and insufficient evidence to recommend its use in treatment of alcohol withdrawal.

	RECOMMENDATION	GRADE OF RECOMMENDATION
8.38	Chlormethiazole, barbiturates, alcohol, beta-blockers, clonidine and gamma-hydroxybutyric acid (GHB) are not recommended in the routine management of alcohol withdrawal.	A

TREATING SEVERE WITHDRAWAL COMPLICATIONS

Severe withdrawal complications include seizures, hallucinations and delirium.

ALCOHOL WITHDRAWAL SEIZURES

Seizures may occur as part of the alcohol withdrawal syndrome. Alcohol acts on the brain through various mechanisms that influence seizure threshold, including calcium and chloride ion flow through glutamate N-methyl D-aspartate (NMDA) and gamma-aminobutyric acid type A (GABA-A) receptors. Chronic alcohol use results in adaptive changes to the effects of alcohol, and the seizure threshold is lowered as a rebound phenomenon when alcohol intake is stopped.

CLINICAL PRESENTATION AND PREVALENCE

Alcohol withdrawal seizures typically occur 6 to 48 hours after the last drink is consumed (50% between 13 and 24 hours; 90% within 48 hours). The prevalence of alcohol withdrawal seizures is estimated at between 2 and 9 per cent of alcohol dependent people. Withdrawal seizures occur as blood alcohol levels fall, and in some people with severe alcohol dependence, seizures can occur even if the blood alcohol level is still high (for example, greater than 20 mmol/L). and are usually generalised (tonic-clonic) seizures. These seizures are typically brief, and not associated with post ictal sequelae like Todd's Paresis. Alcohol withdrawal seizures, particularly among people who are older or with cognitive impairment, may be followed by the onset of delirium. The risk of seizure recurrence within 6 to 12 hours after a seizure is estimated at about 25 percent. While the incidence of status epilepticus is low, alcohol withdrawal is a major cause of this life threatening condition.

People who have experienced an alcohol withdrawal seizure are more likely to experience further seizures in subsequent alcohol withdrawal episodes. It is estimated that alcohol-related seizures account for one-third of all seizure-related hospital admissions.

OTHER CAUSES OF SEIZURES

The prevalence of seizures from all causes in alcohol dependent people is up to 15 per cent, estimated to be at least three times higher than the general population. Seizures under these circumstances may be atypical of alcohol withdrawal seizures in onset or type (for example, partial-onset seizures). Long-term neurotoxic effects of high-level alcohol consumption may lead to epilepsy. Heavy alcohol use can also contribute to seizures related to other conditions including:

- recent or past traumatic brain injury and intracranial haemorrhage
- concomitant use of other substances (particularly benzodiazepines)
- concurrent metabolic, infectious, neoplastic or cerebrovascular conditions

These seizures can present clinically as alcohol withdrawal seizures.

PHARMACOLOGICAL APPROACHES TO PREVENTING SEIZURES

Systematic reviews indicate that benzodiazepines substantially reduce the risk of alcohol withdrawal seizures, and the risk of recurrent (further) seizures in a withdrawal episode.

Benzodiazepines with rapid onset (such as diazepam, lorazepam) are recommended. The long duration of diazepam is generally preferred in most cases; however, a short-acting benzodiazepine (such as lorazepam, midazolam) may be preferred where the diagnosis is unclear (for example, possible head injury), or due to severe hepatic failure.

Carbamazepine effectively prevents alcohol withdrawal seizures, but is not effective in preventing recurrent (further) seizures in a withdrawal episode.

There appears to be no advantage in adding anticonvulsants to benzodiazepines for preventing alcohol withdrawal seizures. Phenytoin and valproate do not effectively prevent the onset of alcohol withdrawal seizures and are not recommended. The role of other anticonvulsants (such as gabapentin, topiramate) is yet to be demonstrated, and while their GABAergic actions suggest they may be useful, they are not recommended at this stage.

Prevention of seizures in patients undergoing alcohol withdrawal is as follows:

- In patients with no prior seizure history and not in severe alcohol withdrawal: a symptom-triggered or fixed schedule diazepam regimen is recommended (see 'Medications for managing alcohol withdrawal' above for discussion of regimens).
- In patients with prior seizure history, or in severe alcohol withdrawal: diazepam loading is recommended (20 mg every 2 hours until 60–80 mg or patient lightly sedated), and reducing doses on subsequent days.

ASSESSING AND MANAGING SEIZURES

Many people who drink heavily present to services (such as hospital, paramedic) following a seizure, and can pose a diagnostic dilemma for clinicians. The diagnosis of alcohol withdrawal seizures is one of exclusion of other causes of seizures. If any of these features are present, alcohol withdrawal seizures should not be assumed:

- clinical features or suspicion of other causes of seizures (such as head injury, metabolic, infectious, neoplastic, cerebrovascular disorders)
- no previous seizure history
- two or more seizures in succession
- partial-onset (focal) seizures
- seizure occurring >48 hours after the last drink
- no recent heavy alcohol use or no other features of alcohol withdrawal

The patient should be admitted to hospital, assessed and monitored for at least 24 hours. Investigations should be undertaken according to relevant local guidelines.

Where the diagnosis of alcohol withdrawal seizures can be clearly established, the following management plan is recommended:

- admission into a supervised withdrawal setting for at least 48 to 72 hours
- regular monitoring, including vital signs, alcohol withdrawal scales and neurological observations
- thiamine administration (parenterally, see below) commencing if feasible before glucose administration.
- supportive management, including rehydration and nursing in a quiet environment away from excessive sensory stimuli
- benzodiazepines are recommended to prevent further seizures:
 - midazolam (2–10 mg intravenous infusion if parenteral treatment is required in an acute care setting) with close monitoring of response, airway and saturation.
 - diazepam loading (orally, see above) for a stable patient
 - lorazepam (1–2 mg oral) if the clinician is concerned about respiratory or neurological function.

Carbamazepine effectively prevents seizures in alcohol dependent people, but it does not effectively prevent recurrent seizures or onset of alcohol withdrawal delirium, and is therefore not generally recommended.

	RECOMMENDATION	GRADE OF RECOMMENDATION
8.39	Alcohol withdrawal seizure should only be assumed if the clinical presentation is typical of an alcohol withdrawal seizure, no other causes of seizure are suspected, and the patient has a history of previous alcohol withdrawal seizures. All other cases need full investigation.	B

	RECOMMENDATION	GRADE OF RECOMMENDATION
8.40	People who drink heavily with a seizure of unknown cause should be admitted to hospital and monitored for at least 24 hours. Investigations include biochemical tests and neuroimaging, and possibly EEG.	C
8.41	Loading with benzodiazepines (diazepam, lorazepam or acutely midazolam) and close monitoring for at least 24 hours is recommended after an alcohol withdrawal seizure.	A
8.42	Anticonvulsants are not effective in preventing further seizures in the withdrawal episode.	A

ROLE OF LONG-TERM ANTICONVULSANTS FOR PATIENTS WITH ALCOHOL WITHDRAWAL SEIZURES

Patients should not be initiated on long-term anticonvulsants unless there are other causes of seizure activity. Alcohol withdrawal seizures will not recur if the patient remains abstinent. Most patients who recommence alcohol use have very poor adherence with anticonvulsants, which may even increase the risk of seizures.

	RECOMMENDATION	GRADE OF RECOMMENDATION
8.43	Long-term anticonvulsant treatment is not recommended to prevent further alcohol withdrawal seizures.	D

HALLUCINATIONS

Patients may experience hallucinations or other perceptual disturbances (such as misperceptions) at any stage of the alcohol withdrawal phase. These must be differentiated from other causes for psychosis.

CLINICAL PRESENTATION

Hallucinations may be visual, tactile or auditory. Tactile perceptual changes include pins and needles, itching, burning, numbness, crawling sensations and 'electric fleas'. Hallucinations may be accompanied by paranoid ideation or delusions, and abnormal affect (agitation, anxiety, dysphoria).

Hallucinations during withdrawal are a symptom that generally warrants admission into an appropriate facility (such as a medical, psychiatric or specialist detoxification unit) that can safely manage the patient.

ASSESSMENT AND MONITORING

Thorough psychiatric evaluation is required in order to exclude concomitant medical or psychiatric conditions. Importantly, withdrawal-related hallucinations occur as one of many features of alcohol withdrawal syndrome, and other causes should be considered if the presentation is not consistent with alcohol withdrawal (see 'alcohol-related hallucinosis' below). Where withdrawal-related hallucinations can be established, the following management plan is recommended (see 'Supportive care' above):

- frequent monitoring (including physical parameters, withdrawal severity) and supervision is required to ensure the safety of the patient and others
- ensure adequate hydration
- patient should be managed in a quiet room with minimal sensory stimulation

MEDICATION

Ensure adequate diazepam doses (at least 60 to 80 mg per day) until alcohol withdrawal features are alleviated.

Antipsychotic medications should be used as an adjunct to adequate benzodiazepine doses if the patient is agitated or distressed by their hallucinations, or disruptive to others. No controlled trials have demonstrated the superiority of different antipsychotic medications; practitioners should use medications with which they are most familiar. Examples of regimens include:

- haloperidol 2.5 to 10 mg oral or intramuscular, repeated as required
- olanzapine 5 to 10 mg oral or buccal dose, repeated to 30 mg daily dose as required
- risperidone 1 to 5 mg, oral or intramuscular, twice daily, repeated as required.

Antipsychotic medication should not be used in isolation (that is, without adequate benzodiazepine loading) as they do not adequately prevent the onset of alcohol withdrawal delirium and may lower seizure threshold.

ALCOHOL-RELATED HALLUCINOSIS

Chronic alcohol use can result in an organic psychotic disorder, most commonly with hallucinatory features (alcohol-related hallucinosis), that can be difficult to differentiate from other causes of psychosis. Hallucinosis is uncommon and typically resolves with abstinence but may recur and may be associated with adverse outcomes.

Unlike alcohol withdrawal delirium, the patient will have a clear sensorium during alcohol-related hallucinosis; but typically they will experience auditory (or less often visual) hallucinations and persecutory delusions while they are drinking. Such hallucinations may persist during withdrawal and can be mistaken for alcohol withdrawal hallucinations. The risk of suicide has been highlighted in several reports.

Treatment with antipsychotic medications is recommended if the symptoms are distressing until long-term abstinence is achieved and symptoms ameliorate. The prognosis in these patients is usually good if long-term abstinence is maintained, although some will develop a chronic schizophrenia-like syndrome.

ALCOHOL WITHDRAWAL DELIRIUM

Alcohol withdrawal delirium is also referred to as delirium tremens or DTs.

CLINICAL PRESENTATION AND PREVALENCE

The features of alcohol withdrawal delirium are disturbance of consciousness and changes in cognition or perceptual disturbance (see Table 8.6). A number of medical conditions, including metabolic, infectious, toxic and traumatic causes, may cause delirium.

TABLE 8.6: DSM-5 diagnostic criteria for delirium

- A** A disturbance in attention (i.e., reduced ability to direct, focus, sustain, and shift attention) and awareness (reduced orientation to the environment).
- B** The disturbance develops over a short period of time (usually hours to a few days), represents a change from baseline attention and awareness, and tends to fluctuate in severity during the course of a day.
- C** An additional disturbance in cognition (e.g., memory deficit, disorientation, language, visuospatial ability, or perception).
- D** The disturbances in Criteria A and C are not explained by another pre-existing, established, or evolving neurocognitive disorder and do not occur in the context of a severely reduced level of arousal, such as coma.
- E** There is evidence from the history, physical examination, or laboratory findings that the disturbance is a direct physiological consequence of another medical condition, substance intoxication or withdrawal (i.e., due to a drug of abuse or to a medication), or exposure to a toxin, or is due to multiple etiologies.

Source: American Psychiatric Association 2013, Diagnostic and Statistical Manual of Mental Disorders, fifth edition, text revised, American Psychiatric Association.

Alcohol withdrawal delirium typically commences 2 to 3 days after drinking, and usually lasts for a further 2 to 3 days, although in severe cases can persist for several weeks. The incidence of alcohol withdrawal delirium in placebo-treated alcohol dependent patients entered into inpatient clinical trials averages 5 per cent, although with effective treatment the incidence is much lower. Early studies reported mortality rates as high as 15 per cent; however, the rate has fallen with advances in management to less than 1 per cent. Accompanying clinical features often include autonomic hyperactivity, such as hyperpyrexia, tachycardia, hypertension and diaphoresis.

Concomitant medical conditions are common and may not be obvious or self-reported. These may include dehydration, electrolyte abnormalities, renal failure, unrecognised head trauma, infections (including meningitis), gastrointestinal haemorrhage, pancreatitis and liver failure.

MANAGEMENT

The initial treatment goal in patients with alcohol withdrawal delirium is control of agitation. Rapid control of agitation reduces the incidence of subsequent adverse events.

MONITORING AND ASSESSMENT

Thorough medical evaluation is required in order to identify complications of alcohol withdrawal delirium (such as electrolyte disturbances) and concomitant medical conditions. Close monitoring and supervision (preferably one-to-one) may be needed to ensure safety of the patient from harm to self or others due to wandering, absconding and falls. Vital signs (including pulse, blood pressure, temperature and oximetry), hydration and nutrition should be monitored frequently. Patient should be managed in a quiet room with minimal sensory stimulation. Good lighting and environmental cues (such as a clock and/or calendar) may reduce disorientation.

	RECOMMENDATION	GRADE OF RECOMMENDATION
8.44	Alcohol withdrawal delirium requires hospitalisation, medical assessment, and close monitoring.	A
8.45	Patient should be managed in a quiet environment with minimal sensory stimulation.	C

INTRAVENOUS FLUIDS AND NUTRITIONAL SUPPLEMENTS

Dehydration should be corrected through oral and/or intravenous hydration.

Electrolyte abnormalities should be corrected. In particular, hypomagnesaemia is often reported in patients with alcohol withdrawal delirium, and magnesium administration may help reduce neuromuscular activity and agitation.

Monitoring of fluid input and output may be required.

Parenteral thiamine should be administered (see above).

	RECOMMENDATION	GRADE OF RECOMMENDATION
8.46	Dehydration and electrolyte imbalance should be corrected.	GPP

MEDICATION

Benzodiazepines, having fewer complications than neuroleptics, are recommended as the primary medication in managing alcohol withdrawal delirium, reducing mortality, and duration of delirium. Controlled studies about the most effective benzodiazepine or route of administration are lacking. However, the following points should guide treatment:

- Rapidly acting benzodiazepines should be used. Oral diazepam acts rapidly (within 1 hour) and is easy to administer in most treatment settings. Intravenous diazepam can also be used where agitation must be quickly controlled, without the need for an intravenous infusion. Intramuscular diazepam is poorly absorbed and not recommended.
- Long-acting benzodiazepines (such as diazepam) provide long duration of symptom relief with minimal breakthrough symptoms. Short-acting benzodiazepines require an intravenous infusion, and should only be used in hospital settings with the capacity for close monitoring (such as ICU, high dependency unit).
- Short-acting benzodiazepines (such as midazolam, lorazepam, oxazepam) should be used where clinicians are concerned about prolonged sedation, such as in the elderly recent head injury, liver failure, or other serious medical illness.

From the above, it is recommended that:

- The aim of medication is to achieve and maintain light sedation (somnolence) in which the patient is awake but tends to fall asleep unless stimulated, or is asleep and is easily roused.
- Doses and regimens must be individually titrated for each patient, as there is considerable variation in medication needs.
- Benzodiazepines are the first line of treatment, as described above. High doses are typically required often over 100mg diazepam or equivalent.
- Antipsychotic medications should be used as second-line medication in controlling agitation of alcohol withdrawal, as an adjunct to (not instead of) adequate benzodiazepine doses. Controlled trials demonstrating the superiority of different antipsychotic medications are lacking; practitioners should use medications with which they are most familiar. The newer antipsychotic agents (such as risperidone, olanzapine, quetiapine) have a better safety profile (see above).
- Dexmedetomidine is increasingly used for delirium tremens not responding to benzodiazepines in the intensive care unit setting and has been shown to reduce the requirement for intubation following sedation to control delirium.

	RECOMMENDATION	GRADE OF RECOMMENDATION
8.47	Benzodiazepines should be used to achieve light sedation. Oral diazepam or lorazepam loading until desired effect is the treatment of choice. Intravenous diazepam or midazolam is appropriate if rapid sedation is needed.	A
8.48	Antipsychotic medications should be used to control agitation of alcohol withdrawal as an adjunct to (not instead of) adequate benzodiazepine doses.	A
8.49	Dexmedetomidine may be used for delirium tremens not responding to benzodiazepines in the intensive care unit setting.	B

WERNICKE–KORSAKOFF’S SYNDROME

Wernicke’s encephalopathy is a form of acute brain injury resulting from a lack of thiamine (vitamin B1) that most commonly occurs in chronically alcohol dependent people. In alcohol dependent patients thiamine deficiency occurs due to poor dietary intake and/or intestinal malabsorption. It is estimated that healthy subjects absorb 5 per cent of an oral dose of thiamine, compared to only 1.5 per cent in alcohol-dependent subjects. Wernicke’s encephalopathy is an important comorbidity rather than a withdrawal complication; it is usually identified in acute hospital presentations, including patients presenting with alcohol withdrawal. It can co-exist with and should be distinguished from acute alcohol withdrawal, hepatic encephalopathy, and other causes of confusion.

Wernicke’s encephalopathy is initially reversible, but if untreated or inadequately treated can lead to Korsakoff’s syndrome, a chronic and disabling condition characterised by severe short-term memory loss and impaired ability to acquire new information that often presents with compensatory lying, confabulation. Approximately one-quarter of patients with Wernicke’s encephalopathy recover completely if treated appropriately, one-quarter show significant improvement, one-quarter only partially recover, and one-quarter show no improvement over time. Approximately one-quarter requires long-term institutional care. It is imperative that treatment is initiated early as delays in treatment may worsen the patient’s prognosis. No effective treatment of Korsakoff’s syndrome has been found highlighting the importance of prevention or early diagnosis.

Clinical presentation and diagnosis. The classic triad of Wernicke’s encephalopathy is:

- confusion or mental impairment (estimated to occur in 80% of cases)
- ataxia (approximately 20% to 25% of cases)
- eye signs such as nystagmus or ophthalmoplegia (approximately 30% of cases).

Only a minority of patients with Wernicke’s encephalopathy (estimated at 10%) exhibits all three signs. In rare cases, untreated Wernicke’s encephalopathy may result in hypothermia, hypotension, coma and death. Wernicke’s encephalopathy is grossly under-diagnosed:

- Post-mortem studies reveal Wernicke’s encephalopathy in 12.5 per cent of people who drink heavily (compared to 1.5% of the general population), and only 20 per cent are diagnosed before post-mortem.
- Clinical features of Wernicke’s encephalopathy may be misinterpreted as intoxication, withdrawal, head injury, or other causes of confusion in people who drink heavily.
- While there are no specific routine diagnostic tests for Wernicke’s encephalopathy, MRI can usually detect symmetric alterations in the mamillary bodies, medial thalami, tectal plate, and the periaqueductal gray area in the brain. In patients with a history of alcohol abuse, contrast media can identify mamillary body lesions typical for Wernicke’s encephalopathy, even in the presence of normal unenhanced MRI.

Diagnosis of Wernicke’s encephalopathy requires a high index of suspicion among people with heavy or chronic alcohol use, especially if there are any clinical features (such as memory impairment) consistent with Wernicke’s encephalopathy or Korsakoff’s syndrome. Patients with suspected Wernicke’s encephalopathy or Korsakoff’s syndrome should be assessed for other forms of alcohol-related brain injury, such as dementia.

	RECOMMENDATION	GRADE OF RECOMMENDATION
8.50	Clinicians should consider MR contrast neuro-imaging where the diagnosis of Wernicke’s encephalopathy is not clinically established.	D

PREVENTING AND TREATING WERNICKE’S ENCEPHALOPATHY

All people with heavy or chronic alcohol use should be considered at risk of developing Wernicke’s encephalopathy. Given that so many patients with Wernicke’s encephalopathy are undiagnosed and thiamine is safe and costs little, all patients undergoing alcohol withdrawal should be treated with thiamine to prevent Wernicke’s encephalopathy (see above). And given the major clinical repercussions of not treating Wernicke’s encephalopathy, all patients with any features of Wernicke’s encephalopathy should be treated as though Wernicke’s encephalopathy is established.

PROPHYLAXIS

In patients showing no clinical features of Wernicke’s encephalopathy or memory impairment, thiamine is recommended as a prophylactic measure.

- As well-controlled trials have provided limited evidence to guide therapy, significant uncertainty exists about the required dose and duration of therapy. Modelling of thiamine entry to the brain suggests that high doses are required. There is clinical consensus that it is important to recommend high doses of thiamine to ensure enough is being given to prevent serious neurological disease.

- Healthy patients with good dietary intake may be administered oral thiamine 300 mg per day (for example, 100 mg three times daily) for 3 to 5 days, and maintained on 100 mg oral thiamine for a further 4 to 9 days (total of 1 to 2 weeks of oral thiamine).
- Patients with chronic alcohol use with poor dietary intake and general poor nutritional state should be administered parenteral thiamine doses (due to poor intestinal absorption of oral thiamine supplements). The recommended dose of thiamine 300 mg intramuscularly or intravenously per day for 3 to 5 days, and subsequent oral thiamine doses of 300 mg per day for several weeks.
- Correct any electrolyte disturbances, including hypomagnesaemia.
- Alcohol is associated with coagulopathy that may render intramuscular injection unsafe.
- Where practical, thiamine should be given before any carbohydrate load (such as intravenous glucose) as carbohydrates can cause rapid utilisation of thiamine and precipitate Wernicke's encephalopathy.

TREATMENT

It is imperative that treatment is initiated early as delays in treatment may worsen the patient's prognosis. All people with heavy alcohol use displaying any features of Wernicke's encephalopathy (such as confusion, ataxia, eye signs, coma, memory impairment, hypothermia with hypotension, or delirium tremens) should be treated as though Wernicke's encephalopathy is established (even if intoxicated).

- Thiamine should be given before any carbohydrate load (for example, intravenous glucose) or as soon as possible thereafter.
- Parenteral doses of at least 500 mg per day thiamine (intramuscular or intravenous diluted in saline over 30 minutes) should be administered daily for at least 3 to 5 days, and subsequent doses of at least 300 mg (oral or parenteral) and up to 1000mg per day for 1 to 2 weeks. The intramuscular route should not be used for patients with coagulopathy.
- Correct any electrolyte disturbances, including hypomagnesaemia.

	RECOMMENDATION	GRADE OF RECOMMENDATION
8.51	All patients exhibiting any features of Wernicke's encephalopathy should be treated as though Wernicke's encephalopathy is established.	D
8.52	All patients suspected of Wernicke's encephalopathy should be treated with high-dose parenteral thiamine (at least 500 mg daily) for at least 3 to 5 days. The intramuscular route should not be used for patients with coagulopathy. Subsequent oral thiamine doses of 300 mg per day for several weeks.	D

	RECOMMENDATION	GRADE OF RECOMMENDATION
8.53	Patients suspected of Wernicke's encephalopathy should have hypomagnesaemia corrected in order for thiamine supplements to be effective.	D

LONG-TERM THIAMINE USE & PERSISTENT DRINKING

Oral thiamine (for example, 100 mg daily) should be maintained until long-term abstinence has been achieved. People who have persistent alcohol use should be maintained on oral thiamine supplements.

ELECTROLYTE DISTURBANCES

Electrolyte disorders may contribute to the other complications of alcohol withdrawal and should therefore be sought and treated. Hypokalaemia and hypomagnesaemia should be corrected using oral supplements. Hyponatraemia is usually self-limiting and should not be aggressively corrected because of the risk of central pontine myelinolysis.

	RECOMMENDATION	GRADE OF RECOMMENDATION
8.54	Electrolyte replacement may be a necessary adjunctive treatment for patients with electrolyte abnormalities (such as hypomagnesaemia, hypokalaemia). Hyponatraemia should not be aggressively corrected due to the risk of central pontine myelinolysis.	GPP

CHAPTER 9

PSYCHOSOCIAL INTERVENTIONS

Authors | Matthew Gullo & Jason Connor

This chapter describes, and provides the rationale for, the most widely used empirically supported psychosocial approaches employed to treat alcohol problems. It also presents guidance on the choice of psychosocial treatment with recommendations for strategies that are expected to increase treatment effectiveness.



OVERVIEW OF PSYCHOSOCIAL INTERVENTIONS

Psychosocial interventions or treatments encompass a wide range of non-pharmacological approaches commonly used to treat alcohol and other drug use disorders. These interventions generally focus on the individual (their beliefs, emotions, and behaviour), their social context, including family, community and cultural factors, and the interaction between these domains.

Psychosocial interventions encompass:

- **treatment content** (that is, the skills, strategies and theoretical orientation of treatment);
- **treatment process** (that is, the interaction between the clinician and patient, which includes the strength of engagement, interpersonal interactions, and ability to work on shared treatment goals).

Psychosocial treatment research increasingly supports the view that effective treatment outcomes require sound integration of treatment content and process.

Many psychosocial interventions derive from social learning theory. They share the basic tenet that, although biological and genetic factors play a significant role in the aetiology of substance use disorders, problematic patterns of alcohol and other drug use are learned in a social environment and can, therefore, be replaced by new, more adaptive learned behaviour.

Effective psychosocial interventions help patients address their drinking problems by engaging their motivation and other resources and affecting cognitive, behavioural, and social changes with respect to drinking. Where alcohol use is conceptualised as a maladaptive attempt to manage stress, distress or other negative emotional states, psychosocial interventions can be particularly useful in teaching more functional coping skills.

The most widely used psychosocial approaches that have received consistent empirical support are:

- Brief interventions (see [Chapter 6](#))
- Motivational Interviewing
- Cognitive Behaviour Therapy

A psychosocial intervention can be used as a standalone treatment, in combination with other psychosocial interventions, and/or in conjunction with pharmacotherapy. Consistent evidence shows that people who receive these interventions benefit substantially, and at follow-up show clinically significant reductions in their alcohol consumption, increases in number of days

abstinent, and improvements in overall functioning.

WHEN TO USE PSYCHOSOCIAL INTERVENTIONS

Psychosocial interventions are used to engage a person's interest and commitment to change and to teach the requisite skills to maintain that change. It is the preferred treatment modality for problem drinking by those with heavy alcohol use. They can be used by a range of health practitioners in a variety of treatment settings, but over 50% of people who drink prefer psychiatric or addiction specialist treatment. Specialist treatment produces better outcomes in patients with high severity of dependence. Psychosocial interventions can be implemented individually or in groups. Some health practitioners prefer to use motivational strategies in the early stages of therapy, to increase preparation for change, supplementing with more cognitive-behavioural or other specialised therapy, as appropriate. Clinicians who use these approaches must be appropriately trained and competent in their application.

Psychosocial interventions vary in intensity, from brief to intensive and specialised (e.g. Cognitive Behaviour Therapy, couples therapy). Brief interventions are most suited for people with non-dependent alcohol use (see [Chapter 6](#)). More intensive psychosocial interventions, described in this chapter, are appropriate for people with more established alcohol problems for whom brief interventions are not sufficient (i.e., alcohol dependence).

In general, low intensity psychosocial interventions are indicated for people with less severe dependence (e.g., Motivational Interviewing), increasing the level of intensity for those with more severe dependence. Models of care to help clinicians make decisions about appropriate interventions are presented in [Chapter 5](#).

CHOOSING PSYCHOSOCIAL INTERVENTIONS

The choice of psychosocial intervention for alcohol dependence will differ on the patient's presentation and needs, and available resources. People presenting to alcohol and other drug clinics may have different treatment needs from those presenting to primary care settings.

The principles of treatment selection and care planning are described in [Chapter 4](#) and [Chapter 5](#). Important components of treatment interventions for people with problematic drinking includes:

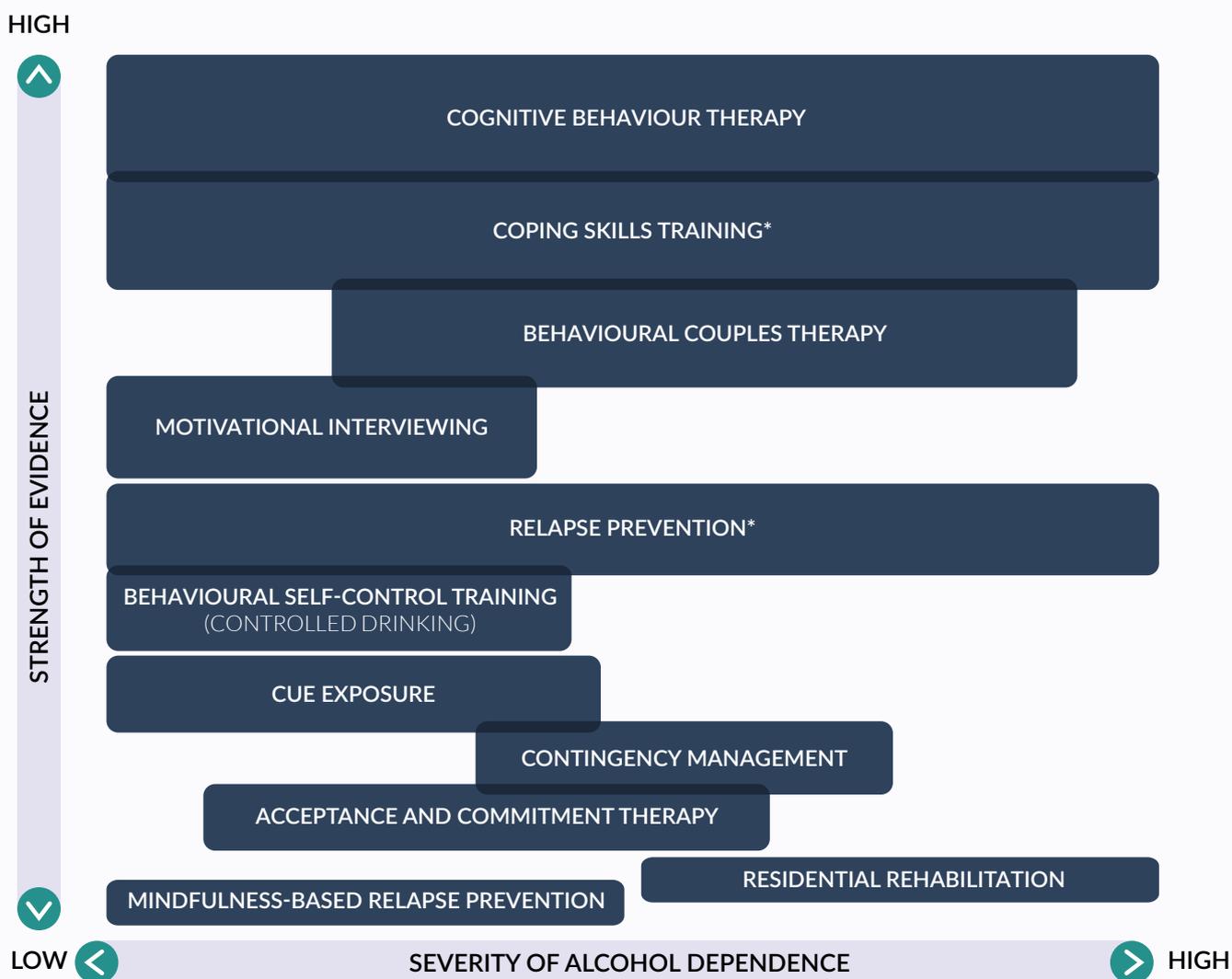
- Assessment and feedback
- Goal setting: abstinence, moderation, and reduced drinking
- Case formulation and treatment plan
- Therapeutic alliance, engagement, and retention in treatment
- Relapse prevention
- Follow-up and aftercare.

Basic counselling 'micro-skills', including empathy, optimism and a non-judgemental attitude, and

strong interpersonal skills are associated with better retention in treatment and indirectly with better treatment retention. Central to provision of any psychosocial intervention is a strong bond and therapeutic alliance between the patient and clinician.

Decisions concerning choice of psychosocial treatment should be guided by the principles of patient-centred care. While much research effort has gone into trying to understand how best to match patients to particular psychosocial treatments, no clear evidence has emerged to offer specific guidance. Recommendations rest largely on the strength of accumulated evidence for different psychosocial interventions. However, there is clear evidence that patients with an alcohol abstinence goal tend to have better treatment outcomes. Studies that have examined the additive efficacy of alcohol pharmacotherapy also indicate that outcomes are improved when psychosocial intervention is combined with medication (covered in [Chapter 10](#)). A brief diagrammatic summary of the evidence for different psychosocial interventions is provided in Figure 9.1.

FIGURE 9.1. Diagrammatic summary of evidence for psychosocial interventions.



Note: Box height reflects number of studies with alcohol-dependent populations. *Intervention is a core component of Cognitive Behaviour Therapy.

MOTIVATIONAL INTERVIEWING

Motivational interviewing is a style of counselling that focuses on helping the individual explore and resolve ambivalence about change. The patient's own reasons for change are elicited and used to motivate movement towards action and drinking reduction. Motivational interviewing is directive in that it guides the patient towards resolution of ambivalence and towards change. The term 'interviewing' was chosen to reflect the therapist's enquiring, non-confrontational approach. The therapist is not viewed as an expert but rather as a facilitator.

Motivational interviewing is effective and should be used as a first-line treatment to address patient ambivalence toward drinking reduction, or as an adjunct to other treatment modalities for alcohol dependence. As a stand-alone treatment to reduce drinking, it is effective in the short-term and in patients with less severe dependence. The principles underpinning Motivational Interviewing are:

- **collaboration** – the therapist and patient pursue change together; there is no coercion, rather facilitation of exploration and discovery
- **evocation** – the patient is believed to possess the intrinsic goals and resources for change, which the therapist elicits
- **autonomy** – the therapist respects the patient's right and capacity for self-direction and facilitates informed choice.

The guiding concepts of Motivational Interviewing are:

EXPRESS EMPATHY

In expressing empathy, the therapist listens non-judgmentally and conveys acceptance of the patient. Reluctance to change problematic behaviour is viewed as an understandable and normal part of human experience. The basic premises are that acceptance facilitates change, skilful reflective listening is fundamental, and ambivalence is normal.

DEVELOP DISCREPANCY

Discrepancy and tension is created empathically between the patient's present behaviour and their broader goals and values. This requires an exploration and understanding of the patient's goals and values as well as an understanding of their current concerns. A discrepancy between these two sets of circumstances will reflect the importance of change to the patient. If change is important, then eliciting reasons for change should not be difficult. If change is not important to the patient, behaviour change may be difficult to achieve and maintain.

ROLL WITH RESISTANCE

Resistance in Motivational Interviewing is viewed as an interpersonal phenomenon between patient and therapist. The therapist avoids argument. A resistant response from the patient is a sign that the therapist's style may be too confronting or insistent and that a different approach is needed. Engagement with resistance is expected to increase resistance. New perspectives are

invited but not imposed. The patient is viewed as the source of new answers and solutions. The therapist's role is to facilitate exploration of options.

SUPPORT SELF-EFFICACY

Self-efficacy refers to a person's belief in their ability to carry out and succeed with a specific task. Self-efficacy is a key element in motivation for change and is a good predictor of change.

	RECOMMENDATION	GRADE OF RECOMMENDATION
9.1	Motivational interviewing should be used as a first-line treatment to address patient ambivalence toward drinking reduction, or as an adjunct to other treatment modalities for alcohol dependence. As a stand-alone treatment to reduce drinking, it is effective in the short-term and in patients with less severe dependence.	A

COGNITIVE BEHAVIOUR THERAPY

Cognitive Behaviour Therapy (CBT) addresses cognitive, affective, and situational triggers for drinking and usually involves ~12 weekly individual sessions. CBT aims to increase drinking refusal self-efficacy through the development of more effective coping strategies. Typically, CBT includes strategies to:

1. Identify and modify dysfunctional cognitions (cognitive restructuring), especially expectations about the consequences of drinking (alcohol expectancies);
2. Identify and manage high-risk situations for drinking;
3. Improve coping skills, including problem-solving and relaxation;
4. Increase non-drinking related activities.

CBT is the most extensively evaluated psychosocial treatment for substance use disorders. There is good evidence for its effectiveness as a standalone psychosocial intervention for alcohol dependence against various comparison conditions, including standard care and other active treatments. The therapeutic benefit of CBT is enhanced when combined with pharmacotherapy ([Chapter 10](#)) and when delivered in combination with other psychosocial interventions.

In modern practice, CBT for alcohol dependence typically begins with a comprehensive assessment combined with Motivational Interviewing to resolve ambivalence about change prior to skills training. CBT should be utilised as a first-line psychosocial intervention for alcohol dependence, and for patients who have not responded to lower-intensity intervention.

	RECOMMENDATION	GRADE OF RECOMMENDATION
9.2	Cognitive Behaviour Therapy (CBT) is an effective treatment for alcohol dependence. It should be used as a first-line psychosocial intervention for all dependent patients. Clinical benefit is enhanced when CBT is combined with alcohol pharmacotherapy or another psychosocial intervention (e.g., Motivational Interviewing).	A

SPECIFIC COGNITIVE-BEHAVIOURAL APPROACHES

CBT can incorporate a variety of different approaches. While these approaches can overlap substantially in focus and technique, they can differ in duration, modality, content, and treatment setting. The most prominent components of CBT for alcohol dependence include:

- Coping skills training
- Relapse prevention
- Behavioural self-control training (controlled drinking)
- Cue exposure
- Behavioural couples therapy.

COPING SKILLS TRAINING

Most applications of CBT for alcohol dependence include coping skills training. Coping skills training assumes that developing effective coping skills can help individuals deal with situations that may lead to drinking. Coping skills training provides alternative strategies to cope with these situations, including social skills that teach patients to deal with interpersonal stress without drinking.

Examples of coping skills training include communication skills, listening techniques, assertiveness, problem solving, drinking refusal skills, coping with urges to drink, relaxation, anger management and stress management skills training.

Coping skills training is one of the best-established and empirically supported interventions.

	RECOMMENDATION	GRADE OF RECOMMENDATION
9.3	Coping skills training is an effective psychosocial intervention. It is recommended for use with all alcohol-dependent patients.	A

RELAPSE PREVENTION

Most applications of CBT for alcohol dependence include relapse prevention as a core component. Relapse is a common problem in alcohol treatment. Most people with alcohol dependence relapse to problematic drinking within the first few months (often weeks) of treatment.

Specific situations or mood states are often associated with relapse, including:

- Negative emotional states (frustration, anger, anxiety, depression, or anger)
- Interpersonal conflict (relationships with partner, work colleagues, friends)
- Direct or indirect social pressure to drink.

Relapse prevention is not so much a specific intervention but rather a set of strategies that aim to help the patient maintain treatment gains. Strategies may include a number of cognitive and behavioural techniques that help prevent lapses becoming relapses, such as:

- Learning to identify situations that have been associated with excessive drinking and to use appropriate cognitive and behavioural strategies to cope effectively
- Constructively appraising lapses, thereby reducing fear of failure, guilt, shame and hopelessness and preventing a lapse from becoming a relapse
- Learning, through careful forward planning, to avoid unnecessary risk and deal positively and confidently with inevitable risk.

All alcohol dependent patients should be offered the opportunity to learn relapse-prevention strategies as part of a broader CBT program. Relapse prevention addresses itself to maintaining change and to developing self-efficacy and coping skills.

	RECOMMENDATION	GRADE OF RECOMMENDATION
9.4	Psychosocial relapse prevention is an effective intervention. It may be less effective than other active psychosocial interventions when delivered in isolation. It is recommended for use with all alcohol-dependent patients as part of a broader Cognitive Behaviour Therapy (CBT) intervention.	B

BEHAVIOURAL SELF-CONTROL OR SELF-MANAGEMENT TRAINING

The behavioural self-control training approach (also called controlled drinking) teaches people to reduce their alcohol consumption and is suitable for people at the less severe end of the dependence spectrum without major harms.

Identifying and agreeing upon treatment goals is an important process for many patients (see also [Chapter 4](#)). For patients with no or low levels of alcohol dependence, and who are not experiencing significant or irreversible alcohol-related harms, a goal of moderation may be achievable. Consumption within current National Health and Medical Research Council (NHMRC) *Australian Guidelines to Reduce Health Risks from Drinking Alcohol* (2020) (see [Chapter 1](#)) can be recommended either immediately or as a medium-term target. Recent evidence provides support that reduction by more modest amounts but at least two of the four World Health Organisation (WHO) risk levels is associated with improvements in clinically meaningful outcomes.

WHO RISK DRINKING LEVEL	SEX	MEAN GRAMS OF ETOH CONSUMED PER DAY	STANDARD DRINKS (10 GRAMS IN EACH)
Very High	Men	> 100	> 10
	Women	> 60	> 6
High	Men	60 - 100	6 - 10
	Women	40 - 60	4 - 6
Moderate	Men	40 - 60	4 - 6
	Women	20 - 40	2 - 4
Low	Men	1 - 40*	< 4
	Women	1 - 20*	< 2

Note: *Note that WHO Low risk drinking level differs from Australian equivalent due to inclusion of a broader range of adverse outcomes in the Australian analysis.

For patients with severe alcohol dependence, and/or those presenting with associated problems such as organ damage, cognitive impairment and co-existing mental health problems, the most realistic drinking goal is likely to be abstinence. For many such patients, achieving abstinence is associated with a risk of alcohol withdrawal syndrome. If so, this should be managed before longer-term abstinence or reduced drinking can be achieved (see [Chapter 8](#)). Limited evidence indicates that people with moderate to severe dependence can successfully moderate their alcohol use in the immediate term, and a period of abstinence (at least 3 to 6 months) is generally recommended before attempting controlled drinking programs. See [Chapter 4](#) for treatment planning and how to work with patients who identify unrealistic treatment goals.

Behavioural self-management includes:

- **Goal setting**
 - setting the number of drinks to be consumed per day or week
 - setting the circumstances in which drinking will occur
- **Self-monitoring of daily drinking, including**
 - time, place, and people with whom they drink
 - number of drinks consumed
 - how they felt at the time
- **Controlling the rate of drinking**
 - timing each drink and spacing drinks
 - alternating between alcohol-based and non-alcohol-based drinks
 - eating during sessions
- Identifying problematic drinking situations and triggers to drinking.

Various self-help booklets and resources are available to help patients attempting controlled drinking programs (see [Appendix 6](#)).

	RECOMMENDATION	GRADE OF RECOMMENDATION
9.5	Behavioural self-control training is more effective than no treatment and alternative non-abstinence-focused treatments for problem drinking. It can be recommended for patients with less severe alcohol dependence when both patient and clinician agree that moderation is an appropriate treatment goal.	B

CUE EXPOSURE

Cue exposure derives from associative learning theory. It assumes that people, places or events that regularly precede drinking become associated with the pleasant effects of alcohol, and alcohol consumption becomes a conditioned response to these cues. Cue exposure is a specialist treatment intervention and should only be offered by qualified health practitioners.

Cue exposure can be applied with a treatment goal of either abstinence or moderation. The goal of cue exposure is to decrease the likelihood of relapse to drinking by either decreasing the strength of the association between alcohol-related cues and the urge to drink, or increasing the use and effectiveness of coping skills when confronted with alcohol-related cues in daily life. However, it is unclear the extent to which the effectiveness of cue exposure relies on the concurrent training of coping skills. The effectiveness of the cue exposure element is yet to be established.

	RECOMMENDATION	GRADE OF RECOMMENDATION
9.6	Cue exposure in conjunction with coping skills training may reduce drinking in the longer-term, but may be ineffective in the short-term. There is no evidence that adding cue exposure to an established treatment (e.g., CBT) increases effectiveness.	C

BEHAVIOURAL COUPLES THERAPY

Alcohol problems have a far-reaching effect on partners and families. Therapy with couples or partners – especially behaviourally-oriented therapy – has received considerable empirical support as an adjunct to individual-oriented treatment. Behavioural couples therapy focuses on both the patient and their partner and their communication and social context. It teaches the person who drinks self-management skills and the partner, coping skills. It teaches communication and problem solving skills to reduce conflict and ways of consolidating social support for changes in alcohol use. In behavioural couples therapy, patients and their partner are seen together typically for 12-20 couple sessions usually lasting 90 minutes.

Feasibility issues are important to consider when offering this treatment. In studies that have evaluated behavioural couples therapy, couples are married or have been cohabiting for at least 1 year and the patient’s partner does not have a substance use disorder. Treatment involving behavioural couples therapy is a more costly intervention, because it is typically delivered in addition to individual psychosocial treatment. Most behavioural couples therapy studies reported a high refusal rate (as high as 75-84%), because the patient did not want their partner involved in treatment, the partner was reluctant to be involved, and/or scheduling challenges. Health practitioners should be aware of these considerations when presenting behavioural couples therapy as a treatment option.

	RECOMMENDATION	GRADE OF RECOMMENDATION
9.7	Behavioural Couples Therapy, as an adjunct to individual psychosocial treatment, can reduce drinking and should be offered to married/cohabiting patients whose partner does not have a substance use disorder.	B

MINDFULNESS-BASED RELAPSE PREVENTION

Mindfulness and meditation-based interventions have become increasingly popular in mental health. Mindfulness-Based Relapse Prevention is a recent adaptation of CBT-based relapse prevention (discussed above) that incorporates mindfulness-based meditation techniques. The

mindfulness-based components are primarily drawn from Buddhism and designed to increase present-moment awareness of cognitive and emotional experiences, including exposure to them. The addition of mindfulness skills is proposed to help prevent relapse by increasing awareness of relapse triggers and tolerance for difficult affective states like craving or stress.

There is limited and mostly low-quality evidence that does not support the use of mindfulness-based relapse prevention for treating alcohol dependence. The only published randomised controlled trial found the addition of mindfulness-based relapse prevention to usual care provided no benefit. Reviews of mindfulness-based relapse prevention for substance use disorder more broadly have also found no evidence of benefit compared to controls (mostly treatment as usual). More high-quality studies are required to demonstrate its efficacy before it can be recommended as a treatment for alcohol dependence.

	RECOMMENDATION	GRADE OF RECOMMENDATION
9.8	Mindfulness-Based Relapse Prevention should not be offered as a first-line psychosocial intervention for alcohol dependence.	B

ACCEPTANCE AND COMMITMENT THERAPY

Acceptance and Commitment Therapy (ACT) is another therapeutic approach that often includes mindfulness components. It aims to reduce experiential avoidance in a way that does not seek to actively change or control cognition. According to ACT, the abuse of substances like alcohol is a form of experiential avoidance, in that, drinking is often motivated by a desire to regulate unwanted private experiences (e.g., negative affect, craving, withdrawal symptoms). While ACT often includes mindfulness components, it also includes examination of life values and commitment to a valued life direction. The goal of ACT is to foster acceptance of undesirable cognition and affect, and facilitate action tendencies that will lead to improvement in life circumstances.

	RECOMMENDATION	GRADE OF RECOMMENDATION
9.9	Acceptance and Commitment Therapy should not be offered as a first-line psychosocial intervention for alcohol dependence.	B

Very few studies have evaluated ACT as a treatment for alcohol use disorders and there is insufficient evidence to support its use as a standalone treatment. The only randomised controlled trial in alcohol dependence found brief ACT was less effective than CBT at 5-week follow-up, but better than attention placebo.

CONTINGENCY MANAGEMENT

Contingency management is a treatment approach that uses positive reinforcement to improve treatment outcomes by providing incentives to encourage behavioural changes, typically alcohol abstinence. Biological samples are collected periodically for verification of abstinence. The reward provided is often monetary, with the magnitude of the reinforcer increasing with sustained periods of abstinence.

While evidence has shown that contingency management is effective in reducing illicit drug use in research settings, it has not been routinely translated into clinical practice due to resourcing problems and service level reluctance. Less evidence is available for alcohol dependence because implementing contingency management for alcohol poses additional difficulties. Unlike other substances, it is difficult to reliably detect recent alcohol use as neither blood nor breath tests can detect alcohol use that occurred more than 12 hours previously. The few treatment studies in alcohol dependence have employed daily (or more frequent) breathalyser testing and short follow-up assessment of outcomes. Developments in various technologies have begun to lower this technological barrier (e.g., remote breathalyser systems with identity verification, transdermal sensors, improved biomarkers). These developments may lead to larger, high quality studies with longer follow-up to strengthen the evidence base in alcohol dependence, and improve feasibility in clinical practice.

	RECOMMENDATION	GRADE OF RECOMMENDATION
9.10	Contingency management for alcohol dependence may be effective in the short-term as an adjunct to standard care when used to reinforce biologically-verified abstinence that is assessed frequently (i.e., daily or more).	C

OTHER COUNSELLING STRATEGIES

A number of other approaches have been used in counselling settings, including for patients with alcohol problems. Examples include:

- solution-focused approaches (such as solution-focused brief therapy)
- psychodynamic therapy
- narrative therapy.

These psychosocial approaches are not supported by a strong evidence base, particularly in the treatment of alcohol dependence, and so are not recommended.

RESIDENTIAL REHABILITATION PROGRAMS

Residential rehabilitation programs (sometimes called therapeutic communities) are usually long-term programs where people live and work in a drug and alcohol-free community of other substance users, ex-users and professional staff. Programs can last anywhere between 1 and 24 months (or more). The aim of residential rehabilitation programs is to help people develop the skills and attitudes to make long-term changes towards an alcohol- and drug-free lifestyle. Interventions available to residents in these programs tend to vary depending on the length of program and model in use. They generally include alcohol and other drug withdrawal or maintenance management, individual or group psychological support, peer self-help, and assistance with re-integration into the community.

	RECOMMENDATION	GRADE OF RECOMMENDATION
9.11	Residential rehabilitation programs may be of benefit for patients with moderate to severe alcohol dependence and need a structured residential treatment setting.	D

Programs usually include activities such as employment, education and skills training, life skills training (such as budgeting and cooking), counselling, group work, relapse prevention, and a 're-entry' phase where people are helped to return to their community. Some programs are based on 12-step Alcoholics Anonymous (AA) approaches (see [Chapter 11](#)). An extended period of abstinence can be beneficial in reversing cognitive and physical harm arising from chronic heavy alcohol use.

Few studies have examined the effectiveness of residential rehabilitation for alcohol dependence. While there is some evidence that components of residential treatment (including therapeutic communities) reduce substance use, the body of evidence remains characterised by significant methodological shortcomings that preclude firm conclusions about effectiveness.

SUMMARY

There is strong support for the efficacy of cognitive behaviour therapy (CBT) as a standalone treatment. It should be employed as a first-line psychosocial intervention for alcohol dependence. There is also support for motivational interviewing in the short-term and in less severe dependence. Because of its brief duration, motivational interviewing is commonly employed as a prelude to CBT to resolve ambivalence about abstinence and strengthen motivation to change. Individual cognitive-behavioural interventions, when delivered in isolation, vary in their effectiveness and outcomes tend to be better when delivered in combination (e.g., coping skills training combined with relapse prevention). For patients unwilling to pursue abstinence, behavioural self-control training (controlled drinking) is more effective than no treatment and can be offered for patients considered suitable for a moderation goal by their health practitioner.

Effective CBT involves developing a comprehensive case formulation to guide treatment. This formulation details the cognitive, affective, and situational triggers for drinking as well as related clinical issues faced by the patient (e.g., insomnia, depression, anxiety; see [Chapters 21](#) and [22](#)). CBT encompasses a large collection of therapeutic strategies. Choice of therapeutic strategy is informed by the case formulation. For example, sleep hygiene alone may be effective for insomnia in some alcohol-dependent patients, but not for insomnia caused by an underlying anxiety disorder.

There is less evidence for contingency management and residential rehabilitation programs, and insufficient evidence for mindfulness-based relapse prevention, acceptance and commitment therapy, solution-focused approaches, psychodynamic therapy, narrative therapy, or other counselling techniques for alcohol dependence.



CHAPTER 10 **PHARMACOTHERAPIES**

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This chapter provides a description of empirically supported pharmacological approaches for preventing relapse in alcohol dependence.



PHARMACOTHERAPIES

Pharmacotherapy should be considered for all patients with moderate to severe alcohol use disorder (AUD) following detoxification. They are best used in conjunction with psychosocial support. For some, medication is associated with a critical period of abstinence, during which the patient can learn to maintain abstinence or reduce drinking. For patients who are motivated to take the medication, it can be a potential tool for reducing the core symptoms of AUD.

In Australia, there is a requirement for pharmacotherapies to be part of a comprehensive treatment program to gain Pharmaceutical Benefits Scheme (PBS) subsidy. Trials of pharmacotherapies have typically included some form of psychosocial support. Thus, it is recommended that pharmacotherapy should be considered in association with psychosocial supports as part of an after-care treatment plan.

	RECOMMENDATION	GRADE OF RECOMMENDATION
10.1	Pharmacotherapy should be considered for patients with moderate to severe AUD (i.e. alcohol dependence), and in association with psychosocial supports.	GPP

OVERVIEW OF PHARMACOTHERAPIES

Potential targets for pharmacotherapy are guided by our increasing understanding of the neuropharmacological consequences of chronic alcohol consumption and also the neurobiological mechanisms of alcohol-seeking behaviour and reward. Four medications: acamprosate, naltrexone, disulfiram and nalmefene have been approved for use in Australia as part of a comprehensive treatment plan for AUD. Prescribers are referred to the MIMS Annual for detailed information for these medications.

Acamprosate and naltrexone have been shown to improve treatment outcomes, typically when combined with a psychosocial intervention (see [Chapter 9](#)). The evidence for disulfiram is weaker, but the drug remains an option for relapse prevention in certain circumstances and can be effective as part of a comprehensive treatment approach. Nalmefene is currently unavailable. Several off-label pharmacotherapies also exist with varying levels of evidence for effectiveness (e.g., Baclofen, Topiramate).

FRONT-LINE PHARMACOTHERAPY: TGA-APPROVED MEDICATIONS

ACAMPROSATE

Acamprosate is thought to reduce drinking by modulating brain GABA (gamma-aminobutyric acid) and glutamate function which is implicated in withdrawal symptoms. The drug only reaches desired levels in the brain after one to two weeks.

Meta-analyses of randomised controlled trials indicate acamprosate is effective in maintaining abstinence from alcohol and reducing the risk of returning to any drinking with a number needed to treat (NNT) of 12 over placebo.

	RECOMMENDATION	GRADE OF RECOMMENDATION
10.2	Acamprosate is recommended to help maintain abstinence from alcohol in patients with moderate to severe AUD.	A

INDICATIONS

Based on available evidence, acamprosate is a suitable treatment option for patients with AUD (usually moderate to severe), who are medically stable and are willing to comply with the dosing regimen.

Acamprosate has been suggested to be more effective for patients with an abstinence goal rather than preventing excessive drinking in non-abstinent patients, however this remains to be ascertained as it may be due to a lack of studies evaluating these specific outcomes.

CONTRAINDICATIONS

Acamprosate is contraindicated in patients with a known hypersensitivity to the drug, renal insufficiency or severe hepatic failure (Childs Pugh classification C).

There is an absence of well controlled studies and therefore it should not be administered to women who are pregnant or breastfeeding.

Interactions with other drugs

- Acamprosate is a safe medicine with regards to pharmacological interactions.
- Acamprosate does not interact with alcohol.
- Tetracyclines may be rendered inactive by the calcium component in acamprosate.

STARTING TREATMENT

Acamprosate dosing is recommended to begin 3-7 days after the patient's last drink, and after resolution of any acute withdrawal symptoms. Starting acamprosate at the beginning of detoxification versus after completion of detoxification has not been shown to improve treatment outcomes. Starting acamprosate after the resolution of withdrawal symptoms may prevent the possibility of worsening of withdrawal symptoms and to distinguish between side-effects and withdrawal symptoms.

Medical history should be taken, as per [Chapter 4](#). Physical examination may include assessment for signs of chronic liver disease and hepatic failure. Investigations may include tests of kidney function (urea and electrolytes), since 90 percent of acamprosate is excreted through the kidney, and liver function tests.

	RECOMMENDATION	GRADE OF RECOMMENDATION
10.3	Acamprosate should be started as soon as possible after completion of withdrawal (usually 3 to 7 days after last drink).	GPP

DOSAGE

Acamprosate is formulated in tablets of 333mg, with the recommended dose for adults being 1998mg with meals (six tablets/day, orally in three doses: 2; 2; 2). Adults under 60kg should take 1332 mg/day (four tablets/day in three doses: 2; 1; 1).

In individuals with moderate renal dysfunction (creatinine clearance 30 to 50 ml/min) an initial dose of 333mg three times daily is recommended by the manufacturer.

FORM OF PREPARATION

Acamprosate is available in tablets. It is subsidised by the Pharmaceutical Benefit Scheme.

TREATMENT DURATION

The usual treatment period is 3-6 months. However, the decision on the duration of treatment should be made on a case-by-case basis between the patient and doctor, based on side effects, history of relapse, social and family circumstances and other individual factors.

	RECOMMENDATION	GRADE OF RECOMMENDATION
10.4	Acamprosate is usually taken for at least 3 to 6 months. Treatment thereafter is assessed for each patient.	A

ADVERSE EFFECTS AND THEIR MANAGEMENT

Acamprosate is usually well tolerated. Its predominantly gastrointestinal adverse effects, commonly diarrhoea, usually resolve spontaneously within days. Mild abdominal pain, rash or isolated pruritus, paraesthesiae, altered libido and confusion have been reported at low frequencies.

The following strategies are recommended:

- Patient education about expected side effects and duration.
- Distinguishing between prolonged alcohol withdrawal symptoms and side effects of acamprosate by beginning treatment once more pronounced features of withdrawal have subsided (after first 3-5 days).

CLINICAL CONSIDERATIONS DURING TREATMENT

Treatment should continue even if the patient lapses; psychosocial relapse prevention techniques should be used to deal with the lapse or relapse.

The clinician should regularly monitor the patient's progress and attend to physical, mental health and social issues as they arise.

Some patients will have difficulty adhering to a medication regime that involves taking tablets three times a day for prolonged periods (see below for strategies).

ENDING TREATMENT

There is no evidence of a withdrawal syndrome following the use of acamprosate or of developing dependence. Psychosocial relapse prevention interventions should continue beyond the end of pharmacotherapy.

NALTREXONE

Naltrexone is an opioid receptor antagonist. By blocking mu- opioid receptors, naltrexone reduces levels of dopamine (the major reward neurotransmitter in the brain) and reduces alcohol intake.

The effectiveness of naltrexone to reduce the rate of relapse has been well documented in literature. Meta-analyses of randomised controlled trials indicate naltrexone is effective in reducing alcohol consumption with a number needed to treat (NNT) of 12 over placebo for reducing the risk of returning to heavy drinking.

The current approach is to use naltrexone as part of a more comprehensive treatment plan that may include psychosocial interventions.

	RECOMMENDATION	GRADE OF RECOMMENDATION
10.5	Naltrexone is recommended for prevention of relapse to heavy drinking in patients with moderate to severe AUD	A

INDICATIONS

Patients with a moderate to severe AUD and who are medically stable are suitable for naltrexone. Naltrexone may be more effective for preventing relapse to heavy drinking than for maintaining abstinence however this remains to be confirmed.

CONTRAINDICATIONS

Patients currently using opioids or who require opiate-based pain relief are not suitable. Due to its antagonist properties at the mu-opioid receptor, naltrexone will precipitate acute opioid withdrawal in patients currently using opioids. For the same reason, being on naltrexone will render opioid analgesia ineffective.

Naltrexone is contraindicated for people with acute hepatitis or severe liver failure. Patients should be close to or under the upper limit of normal on liver function tests (see below).

There are no well controlled studies of the safety of naltrexone during pregnancy or lactation.

	RECOMMENDATION	GRADE OF RECOMMENDATION
10.6	Naltrexone is not suitable for people who are opioid dependent or who have pain disorders needing opioid analgesia.	GPP

INTERACTION WITH OTHER DRUGS

Naltrexone is a mu-opioid receptor antagonist and induces precipitated opiate withdrawal in patients who are currently opiate dependent. It is contraindicated in patients with current or recent use of opioid medication (e.g. codeine, morphine, oxycodone, methadone).

Naltrexone is a long-acting drug and will block the effects of opioids when they are used after commencement of naltrexone treatment. Naltrexone should be discontinued 48-72 hours prior to any situation where opioid analgesia may be required (e.g. in patients undergoing elective surgery).

Naltrexone does not appear to alter the absorption or metabolism of alcohol; however, some patients have reported nausea after drinking alcohol while taking naltrexone.

The interaction of naltrexone and most other medications has not been tested. However, caution should be exercised when combining naltrexone with other drugs known to have hepatotoxicity (e.g. disulfiram).

Concurrent administration of naltrexone with antidepressants appears to be safe.

STARTING TREATMENT

Naltrexone dosing is recommended to begin 3-7 days after the patient's last drink and after resolution of acute withdrawal symptoms. Starting naltrexone after the resolution of withdrawal symptoms may prevent the possibility of worsening of withdrawal symptoms (e.g., nausea/vomiting) and also to aid distinguish between side-effects and withdrawal symptoms.

It is not known whether patients with a diagnosis of AUD achieve better outcomes if abstinent before taking naltrexone. However, some period of abstinence (at least 3 days) was the requirement of most clinical trials investigating the effectiveness of naltrexone.

Due to hepatotoxicity and potential rise of liver enzymes, it is pivotal that liver function tests are close to or under the upper limit of normal before commencement of naltrexone (alanine aminotransferase concentrations should not be greater than 3-5 times the normal limit).

	RECOMMENDATION	GRADE OF RECOMMENDATION
10.7	Naltrexone should be started as soon as possible after completion of withdrawal (usually 3 to 7 days after last drink).	GPP

DOSAGE

Naltrexone is formulated in tablets of 50mg, with the recommended dose being 50mg (1 tablet/day orally) with meals. It may be preferable to commence with ½ tablet (25mg/day) for several days and increase to 50mg after any adverse effects have subsided.

FORM OF PREPARATION

In Australia, naltrexone is only available in tablets. Naltrexone is subsidised by the pharmaceutical benefit scheme (PBS).

TREATMENT DURATION

The most appropriate duration of treatment continuation in a patient with moderate to severe AUD is not yet known. The usual treatment period used in majority of randomised controlled studies as well as in clinical practice is 3-6 months and in some cases up to 12 months.

The decision on the treatment duration should be made on a case-by-case basis between the patient and doctor, based on side effects, history of relapse, social and family circumstances, and other individual factors.

	RECOMMENDATION	GRADE OF RECOMMENDATION
10.8	Naltrexone is usually taken for at least 3 to 6 months.	A
10.9	Treatment thereafter needs to be assessed per individual patient.	GPP

ADVERSE EFFECTS AND THEIR MANAGEMENT

Naltrexone is usually well tolerated. Common adverse effects include nausea, headache, dizziness, fatigue, nervousness, insomnia, vomiting, and anxiety in about 10 percent of patients. These generally subside with time (usually days).

Based on clinical practice, the following strategies may help reduce the impact of potential side effects on treatment outcome:

- I. Patient education about expected side effects and duration.
- II. Timing of doses: establish a routine; ideally taken in the morning with food or splitting the dosage between the morning and evening.
- III. Gradual introduction of medication (25mg for 1-2 days).
- IV. Dose reduction (half tablets at 25mg/day).
- V. Slow titration.
- VI. Stopping the medication for three to four days before reintroducing it at a lower dose.

Beginning treatment once the major features of alcohol withdrawal have subsided (generally 3-5 days after drinking cessation) may be helpful to distinguish between prolonged alcohol withdrawal symptoms and side effects of naltrexone.

CLINICAL CONSIDERATIONS DURING TREATMENT

Due to hepatotoxicity and potential rise of liver enzymes, it is important to perform liver function tests periodically.

Treatment should continue even if the patient lapses; psychosocial relapse prevention techniques should be used to deal with the lapse or relapse (see [Chapter 9](#)).

Monitoring and attending to physical and mental health is important.

ENDING TREATMENT

There is no evidence of a withdrawal syndrome or development of dependence following the use of naltrexone. Psychosocial relapse prevention should continue beyond the end of pharmacotherapy.

DISULFIRAM

Disulfiram primarily works by inhibiting the action of aldehyde dehydrogenase, the enzyme involved in the second step in the metabolism of alcohol, that converts acetaldehyde to acetate. This leads to the accumulation of acetaldehyde following consumption of alcohol while on disulfiram. The resulting symptoms are unpleasant including flushing, dizziness, nausea and vomiting, irregular heartbeat, breathlessness and headaches. Disulfiram acts as a deterrent to drinking because the patient expects to experience these negative consequences.

Disulfiram has been associated with significantly greater rates of abstinence relative to control, primarily in open-label studies. Supervised intake of disulfiram to ensure treatment adherence has been associated with greater success.

	RECOMMENDATION	GRADE OF RECOMMENDATION
10.10	Disulfiram with closely supervised dosing is recommended only in moderate-severe AUD patients motivated for abstinence, provided there are no contraindications.	A

INDICATIONS

Based on the results of the recent studies discussed above and previous clinical experience, disulfiram is an appropriate medication for patients who are motivated to abstain from alcohol. It should not be prescribed for patients who have a goal of reduced alcohol intake. It is beneficial for patients that accept a need for an external control on their drinking and are prepared to be supervised in the daily dosing of the medication. Since it is most effective with supervised administration, willingness of patient's spouse, family member or a friend is an important factor.

Disulfiram can cause significant toxicity if relapse occurs. It should only be prescribed to patients that display no medical or psychosocial contraindications as described below.

CONTRAINDICATIONS

The intensity of the disulfiram-alcohol reaction varies amongst patients and in rare cases may result in cardiovascular collapse, myocardial infarction, respiratory depression, convulsion and death.

Accordingly, treatment is contraindicated for patients with significant cardiovascular, hepatic or pulmonary disease. Several of the patients most suited to disulfiram in other terms may suffer from these problems. A risk-benefit analysis of the treatment should therefore be undertaken by the treating clinician. The death rate due to the disulfiram-alcohol reaction is small (only 1 in 15,000 patients treated), whereas a substantial proportion would be expected to experience premature mortality and/or reduced quality of life if problems are untreated.

Disulfiram is contraindicated in patients with liver disease because of the production of toxic drug metabolites, which may lead to potentially fatal hepatotoxicity.

Careful monitoring of cardiac and liver condition is recommended if disulfiram treatment is started. Liver tests should be performed fortnightly for 2-3 months, particularly in those with abnormal tests at baseline.

There is low grade evidence that disulfiram may result in an exacerbation of psychosis. Treatment in patients with potential risk should be monitored.

Safe use of disulfiram during pregnancy has not been established. There are no well controlled studies of the safety of disulfiram during pregnancy or lactation. It is not definitive that disulfiram causes fatal abnormalities when administered during pregnancy although there have been rare case reports of congenital abnormalities following prenatal exposure in conjunction with other compounds. The drug is listed in category B2, meaning disulfiram has been taken by only a limited number of pregnant women and women of childbearing age, without an increase in the frequency of malformation or other direct or indirect harmful effects on the human fetus having been observed.

	RECOMMENDATION	GRADE OF RECOMMENDATION
10.11	Disulfiram is contraindicated in pregnancy and advanced liver disease	GPP

INTERACTION WITH OTHER DRUGS

The most relevant interaction with other drugs concerns medicinal product containing alcohol (e.g. drop formulations) as this can trigger the disulfiram-ethanol reaction.

Disulfiram increases the blood concentration of benzodiazepines, caffeine, phenytoin, the active ingredient in marijuana, isoniazid, barbiturates, anticoagulants, tricyclic agents and paraldehyde. Disulfiram should not be given concomitantly with paraldehyde because paraldehyde is metabolized to acetaldehyde in the liver.

Moreover, disulfiram reinforces the action of coumarinic anticoagulants thus increasing the international normalised ratio (INR). Disulfiram augments warfarin hypoprothombinemia by chelating the metal cations necessary for the synthesis of active prothrombin. This combination is usually avoided.

STARTING TREATMENT

Treatment should begin after detoxification, approximately 24-48 hours after drinking cessation. Medical history should be taken. It is important to discuss the effects of the drug when alcohol is taken, including potential severe, life threatening reaction. The patient's anticipation of its effects will greatly enhance the drug's effectiveness as a deterrent against drinking. Disulfiram should be seen as an aid that does not detract from the patient's own responsibility in maintaining abstinence.

SUPERVISION

Based on the outcomes of the recent studies discussed above, disulfiram treatment is best suited to individuals with social supports (e.g. family) who will help supervise medication. Supervision has a marked effect on adherence and may greatly improve the effectiveness of this intervention.

A spouse/partner is an obvious choice for married/de facto patients. It is important to stress that the spouse cannot be expected to control the other person's drinking. A written 'disulfiram contract' should be considered between a carer and patient. This contract should include an outline of the likely effects of drinking and products that may need to be avoided (e.g. facial products), the recognition that the patient will allow the medication to be supervised, that the carer will be the supervisor and that the supervisory role includes contacting the health professional if medication compliance becomes a problem.

DOSAGE

Disulfiram is formulated in tablets of 200mg, with the recommended dose being 200- 400mg (1-2 tablets/day orally). Some patients can continue to drink on 200-400 mg without significant aversive effects, and the dose should be increased. The maintenance dosage should generally not exceed 600 mg a day. In many patients, two or three doses per week may be sufficient, and this approach may be more practical and easier to schedule with supervision.

FORM OF PREPARATION

Disulfiram is available in tablets. It is not subsidised by the Pharmaceutical Benefit Scheme (PBS).

TREATMENT DURATION

Disulfiram is likely to be a useful treatment for the first 3-6 months of treatment. After that the benefits of continuing use are less clear and the patient should be reviewed before continuation. Some patients continue treatment for 12 months or more, particularly when effective and for severe AUD. Prolonged treatment is supported by published uncontrolled case series.

RECOMMENDATION		GRADE OF RECOMMENDATION
10.12	Disulfiram is usually taken for 3 to 6 months.	C

ADVERSE EFFECTS AND THEIR MANAGEMENT

Some of the common adverse effects of disulfiram include drowsiness, nausea, headache and fatigue. Some patients may report taste disturbance (metallic or garlic-like). Rarely, jaundice, hepatitis (sometimes fatal), peripheral neuropathy, psychosis, confusion, optic neuritis, blood dyscrasias and rash may occur. These are more common when doses exceed 400mg daily.

Clinicians should educate patients about expected side effects and duration; and should distinguish between prolonged alcohol withdrawal symptoms and side effects of disulfiram by beginning treatment once the more pronounced features of withdrawal have subsided (after the first 3 to 5 days). Patients should be advised to stop taking disulfiram at once and tell their doctor if they notice yellowing of their eyes or skin, dark urine.

Even very small amounts of alcohol may cause unpleasant effects. Clinicians should advise patients to avoid using alcohol in cooking and choose skin and oral hygiene products (such as perfumes, body lotions, mouth washes) that do not contain alcohol. Some medicines contain alcohol and should also be avoided. However, the strength of the alcohol–disulfiram interaction varies between individuals. Some patients react to very small amounts of alcohol, others have little reaction when consuming large quantities of alcohol.

Potentially fatal hepatotoxicity can occur with disulfiram, although rare. The hepatotoxicity is usually reversible if disulfiram is stopped before clinically evident liver disease is present. Therefore, monitoring of liver function is crucial. As the onset can be very rapid, it is important to inform patients of the risks and symptoms. If adverse symptoms are noted, disulfiram should be stopped.

CLINICAL CONSIDERATIONS DURING TREATMENT

As per above, it is crucial to closely monitor liver functions tests due to the hepatotoxic effects, especially in patients with pre-existing elevated liver function tests prior to commencement of disulfiram treatment.

Treatment should be suspended if the patient lapses; psychosocial relapse prevention techniques should be used to deal with the lapse or relapse (see [Chapter 9](#)). Disulfiram may be recommenced after 48 hours abstinence.

ENDING TREATMENT

Alcohol metabolism returns to normal between 7 and 10 days (sometimes three weeks) after stopping disulfiram, as new enzymes must be synthesised. Patients may experience adverse reaction if they drink alcohol within 7 days after stopping treatment. Psychosocial relapse prevention interventions should continue beyond the end of pharmacotherapy.

FIRST-LINE MEDICATION: TGA APPROVED BUT NOT AVAILABLE IN AUSTRALIA

NALMEFENE

Nalmefene is currently not available in Australia. Nalmefene is an opioid receptor antagonist that has a comparable chemical structure to naltrexone. Nalmefene is a selective opioid receptor

ligand with antagonist activity at the μ and δ receptors and also has partial agonist activity at the κ receptor.

Nalmefene is the first pharmacotherapy for the management of AUD that has been approved by the Therapeutic Goods Administration (TGA) specifically for pharmacologically controlled drinking. Nalmefene shows some superiority over placebo for reducing alcohol consumption. However, more research is needed until we make a recommendation in line with TGA approval regarding the use of nalmefene for the management of controlled drinking. Nalmefene is not listed on the PBS.

	RECOMMENDATION	GRADE OF RECOMMENDATION
10.13	Nalmefene appears promising to reduce heavy drinking in adult AUD patients but the evidence remains lower than first-line medications.	C
10.14	Nalmefene is approved by the TGA for the management of management aimed at controlled drinking for AUD. However, more research is still required before recommendation as first-line treatment for this indication.	D

INDICATIONS

Nalmefene is approved by the TGA to reduce high levels of alcohol consumption in adult patients with moderate to severe AUD. Nalmefene should be prescribed in conjunction with continuing psychosocial support focused on treatment adherence and reducing alcohol consumption. Nalmefene is not suitable for patients with physical withdrawal syndrome or who require immediate detoxification.

CONTRAINDICATIONS

Nalmefene induces precipitated opiate withdrawal in patients who are currently opiate dependent. It is contraindicated in patients with current or recent use of opioid medication. Nalmefene is contraindicated in patients with a known hypersensitivity to the drug or renal insufficiency.

Nalmefene does not compromise liver function. However, use of nalmefene in patients with severe hepatic impairment is contraindicated (Child-Pugh class C). The use of nalmefene is contraindicated in pregnant women and during lactation.

INTERACTION WITH OTHER DRUGS

Nalmefene should be discontinued 1 week prior to any situation where opioid analgesia may be required (e.g. in patients undergoing elective surgery). In an emergency situation when opioids must be administered to a patient taking nalmefene, the amount of opioid required to obtain the desired effect may be greater than usual.

STARTING TREATMENT

Nalmefene is the first pharmacotherapy in the management of AUD whose indication is pharmacologically controlled drinking, thus it is indicated that treatment starts when patients are still actively drinking and with concomitant psychotherapy.

DOSAGE

The starting and recommended dose for nalmefene is one tablet (18 mg) per day. Nalmefene is to be taken as needed: on each day the patient perceives a risk of drinking alcohol; one tablet should be taken, preferably 1-2 hours prior to the anticipated time of drinking. If the patient has started drinking alcohol without taking nalmefene, the patient should take one tablet as soon as possible.

TREATMENT DURATION

The most appropriate duration of treatment continuation in patients with moderate to severe AUD is not yet known but the usual duration is 3 months. However, the decision regarding treatment duration should be made on a case-by-case basis between the patient and doctor. This will be based on side effects, history of relapse, social and family circumstances, and other individual factors.

ADVERSE EFFECTS AND THEIR MANAGEMENT

Common side include a higher risk of dizziness, headache, insomnia, nausea and vomiting.

SECOND-LINE PHARMACOTHERAPIES: OFF-LABEL MEDICATION

Several new off-label agents are emerging in the literature. Off-label medications are pharmacotherapies that are not licensed by the TGA for treatment of AUD. They should be a second-line pharmacotherapy in patients who have not responded to approved pharmacotherapies for this indication. However, if first-line medications are contraindicated in patients (e.g. naltrexone/ disulfiram in patients with advanced liver disease), off-label pharmacotherapy may be considered as a first line treatment.

BACLOFEN

Baclofen is a γ -aminobutyric-acid (GABA)_B receptor agonist and is approved for the treatment of central spasticity. Baclofen is mostly excreted through the kidneys and therefore can be a potential pharmacotherapy for AUD patients with liver disease. There is some evidence baclofen treatment is associated with abstinence, however, reductions in heavy drinking has not been demonstrated. Current literature suggests that high dose (>60 mg/day) baclofen is not more effective than low dose (30-60 mg/day) baclofen. Superiority over placebo has not been well established and the strength of the evidence for treatment efficacy is at this point lower than that of approved medications for the treatment of AUD.

ADVERSE EFFECTS AND THEIR MANAGEMENT

Baclofen is also associated with adverse effects including vertigo, somnolence/sedation, paraesthesia, and muscle spasms/rigidity. Sedation may occur even at low doses and safety concerns have been reported. Renal function needs to be evaluated before baclofen treatment given its renal excretion and contraindication in patients with kidney failure. Baclofen should be started at a low dose (5-10 mg three times per day) and slowly titrated upwards with caution due to the risks of sedation and overdose (e.g. 5-10 mg/day, every three days). Treatment with baclofen should be not abruptly interrupted to avoid the risk of withdrawal symptoms. The daily dose should be slowly reduced (e.g. 5-10 mg/day) to complete treatment. For patients with a risk of overdose, baclofen is relatively contraindicated, unless in a specialist setting and with controlled dispensing (eg weekly or daily dispenses).

	RECOMMENDATION	GRADE OF RECOMMENDATION
10.15	Baclofen may assist in achieving abstinence from alcohol but evidence remains lower than first-line medications.	C
10.16	Safety concerns with baclofen treatment include risk of overdose, dose escalation and seizures. Overdose risk increases with a history of self-harm or unstable mood. Baclofen is not recommended as first-line treatment and should be prescribed with caution.	B
10.17	Baclofen may be considered in specialist settings as a second-line treatment for selected patients contraindicated for first-line medications, such as alcohol-related liver disease.	C

TOPIRAMATE

Topiramate is an anti-epileptic medication that is hypothesised to induce its effect by antagonizing glutamate activity at glutamate receptors (AMPA and kainate receptors) and inhibiting dopamine release. Topiramate has shown some superiority over placebo for reducing drinking and but more trials are needed.

	RECOMMENDATION	GRADE OF RECOMMENDATION
10.18	Topiramate has some evidence for reducing heavy drinking. Topiramate has a complex side effect profile and further research is needed before it can be recommended as first-line treatment.	B

OTHER MEDICATIONS

Other medications that have been evaluated for the treatment of AUD include serotonergic agents, gabapentin, anti-psychotics, varenicline, GHB and prazosin. However none of these agents can be recommended at this stage.

While some patients commonly seek benzodiazepines, no studies support their efficacy in reducing alcohol use beyond the immediate withdrawal period, and indeed there may be adverse interactions between benzodiazepines and alcohol.

Antidepressants have been evaluated in several trials and are not recommended as relapse prevention agents for AUD.

	RECOMMENDATION	GRADE OF RECOMMENDATION
10.19	Other medications may appear promising agents in the management of AUD. However, further research is required and they are not recommended at this stage.	B
10.20	Benzodiazepines are contraindicated as relapse prevention agents in the treatment of AUD.	GPP
10.21	There is little evidence that antidepressants can be recommended as relapse prevention agents in the treatment of AUD.	B

CONCURRENT PSYCHOSOCIAL INTERVENTIONS

Although combining psychosocial and pharmacologic treatments for AUD could be more efficacious than either treatment alone, few studies have examined the effect of varying the intensity of the psychosocial treatment. Therefore, definitive recommendations on the optimal combinations are not possible.

INCREASING MEDICATION ADHERENCE

Pharmacotherapy adherence rates of AUD patients are generally low in Australia. Poor medication adherence may be due to: adverse side effects; stigma attached to taking medication for an AUD; the lack of any immediate reward for complying with these pharmacotherapies; fears about the safety and side effects of the medication. Adherence to pharmacotherapies may be assisted by:

- I. Eliciting the patient's thoughts and concerns about taking medication and using cognitive restructuring techniques to help them change unhelpful or maladaptive thoughts about taking medication
- II. Providing the patient with a realistic view of the way in which the medication can help, its side effects, and any risks associated with its use

- III. Using motivational interviewing techniques to help the patient to identify their personal benefits and costs of taking the medication
- IV. Providing the patient with some take-home reading material about the medication
- V. Following up patients who miss appointments

Adherence may also be a problem in patients that suffer cognitive impairment from chronic drinking. Aids to enhance adherence in such instances include: family supervision, medication calendars, special containers, dispensing systems, reminders and follow-up monitoring from health professionals.

	RECOMMENDATION	GRADE OF RECOMMENDATION
10.22	Medication compliance can be improved with use of adherence enhancing strategies.	B

PERSONALISED PHARMACOTHERAPY: SELECTING MEDICATIONS FOR INDIVIDUAL PATIENTS

Available evidence does not enable clear recommendations as to which front-line medication is best suited to different patients. The majority of studies that have examined predictors of treatment response have been retrospective analyses. Several studies indicate that naltrexone may be particularly efficacious among those that drink alcohol for the rewarding effect of alcohol. Other studies have reported naltrexone should be considered for patients who want to reduce heavy drinking whereas acamprosate is better for those who seek abstinence. However, it is important to note that neither benefit is large or consistent enough to direct a clinical recommendation as yet, particularly given that the majority of acamprosate trials did not include heavy drinking measures as an outcome. Similarly, while there have been several retrospective studies reporting genetic moderators of treatment response (eg μ -Opioid receptor (OPRM1) genotype for naltrexone), no prospective study has confirmed any genetic predictors to date.

Thus, there is still little scientific consensus with which to direct a personalised approach with confidence. Clinical decision making can nonetheless be guided by several factors (depicted in Table 1). These include i) individual patient factors: such as side effects, prior experience, treatment goals, capacity to adhere to treatment regime, concomitant physical conditions and mental disorders and ii) resource factors: social supports and the cost of some medications will be prohibitive for some patients. Precautions for the main physical conditions are listed in Table 1. Most front-line medications appear to be safe in the context of concurrent mental disorders although caution may be applied regarding disulfiram and psychosis. Details on management approaches for AUD and comorbid physical disorders can be found in [Chapter 22](#) and comorbid mental disorders can be found in [Chapter 21](#).

TABLE 10.1. Currently available first-line medications for managing relapse prevention in AUD

NALTREXONE

COSTS
PBS FUNDED
~\$40, PER MONTH

INDICATIONS

- Patients with moderate- severe AUD
- Possibly more effective in reducing heavy drinking

CONTRAINDICATIONS AND/OR PRECAUTIONS

- Use of opioids (precipitated withdrawal)
- Liver failure/ hepatitis (hepatotoxicity)
- Liver function test (ALAT) 3-5 times above the normal limit
- Pregnancy/ lactation
- Renal impairment

ACAMPROSATE

COSTS
PBS FUNDED
~\$40, PER MONTH

INDICATIONS

- Patients with moderate- severe AUD
- Possibly more effective for abstinence
- Capacity to adhere to medication regime.

CONTRAINDICATIONS AND/OR PRECAUTIONS

- Pregnancy/ lactation
- Renal impairment
- Severe liver failure (Childs Pugh classification C).

DISULFIRAM

COSTS
NOT PBS FUNDED
~\$80-90, PER MONTH

INDICATIONS

- Patients with moderate- severe AUD
- Patients with goal of abstinence (disulfiram-ethanol reaction)
- Willingness to be supervised in the daily dosing of medication (e.g. family, pharmacy)

CONTRAINDICATIONS AND/OR PRECAUTIONS

- Cardio-vascular disease
- Pulmonary disease
- Liver failure/ hepatitis (hepatotoxicity)
- Renal impairment
- Psychosis (monitor psychotic symptoms in patients with risk of psychosis)

CHAPTER 11 **PEER SUPPORT PROGRAMS**

Authors | Victoria Manning, Michael Savic & Dan Lubman

This chapter provides an overview of peer support/mutual aid approaches for patients with alcohol use disorders, including Alcoholics Anonymous and Smart Recovery®, and their families, and how they can be incorporated into treatment.



PEER SUPPORT PROGRAMS

Peer support (most commonly elicited through mutual aid groups such as Alcoholics Anonymous) involves the sharing of experiences, knowledge, support, and practical help among people with a lived experience of similar issues or circumstances.

ALCOHOLICS ANONYMOUS

Alcoholics Anonymous (AA) is a peer-based self-help organisation that aims to help members achieve and maintain sobriety. It is readily available in Australia, cost-effective and easily accessible, and may play a useful role in an extended care plan.

Research suggests that patients who attend AA as part of a structured treatment program, in addition to individual outpatient sessions, and who begin attendance early in their treatment, demonstrate better outcomes than people attending either AA or treatment alone.

Established in the United States in 1935, over 125,000 AA groups exist worldwide with a total membership of approximately two million. In Australia, more than 1,800 groups operate in all states and territories, making AA the most widely available program for alcohol-dependent people in Australia. For those unable to access face-to-face groups, a number of groups run online at <http://www.aa.org.au>.

HOW ALCOHOLICS ANONYMOUS WORKS

AA is founded on the assumption that shared experience and mutual support are necessary for recovery from addiction. In particular, AA proposes that sobriety is only possible by first acknowledging one's inability to control one's drinking, committing to a comprehensive overhaul of one's identity and lifestyle, and assisting new members in their recovery.

AA, as the prototype for many self-help groups, uses a core program based around 12 steps (see Box 11.1) that promote increased self-awareness and heighten a sense of meaning in life. Several studies have also suggested that AA-facilitated abstinence is partly due to an increase in self-efficacy. Another hypothesised mechanism through which AA is believed to work is by facilitating changes in the composition of an individual's social network, specifically by increasing the number of pro-abstinence peers supportive of recovery.

AA encourages new members to attend 90 meetings in 90 days, and many long-time members (10 years or more) still attend daily. Such meetings form the core of recovery by providing a non-judgmental environment that facilitates the open discussion of members' difficulties and

vulnerabilities. Generally, after attending several meetings, the new AA member is assigned a sponsor (mentor) who helps them work through the 12 steps. The sponsor has been through the AA recovery program and maintained sobriety for at least one year (usually much longer); the new member is also encouraged to contact their sponsor whenever necessary if additional support is needed between meetings.

The program itself can be broken down into three main stages, namely:

- First, the member must recognise that they are unable to control their drinking, and that they require help from a source greater than themselves to overcome the problem (Steps 1 to 3). It is important to note that the concept of God or a 'higher power' includes anything of a transpersonal nature that can be drawn on for strength, including the AA group itself.
- The second phase develops self-awareness by asking the member to conduct an in-depth 'moral inventory', which is then used as the basis for 'making amends' (Step 8). This helps the member work through situations that could potentially trigger a relapse (Steps 4 to 10).
- Finally, the member is encouraged to develop a sense of spirituality (Step 11) and purpose by assisting others achieve sobriety (Step 12).

BOX 11.1: THE 12-STEPS OF ALCOHOLICS ANONYMOUS

1. We admitted we were powerless over alcohol – that our lives had become unmanageable.
2. Came to believe that a Power greater than ourselves could restore us to sanity.
3. Made a decision to turn our will and our lives over to the care of God, as we understood Him.
4. Made a searching and fearless moral inventory of ourselves.
5. Admitted to God, to ourselves and to another human being the exact nature of our wrongs.
6. Were entirely ready to have God remove all these defects of character.
7. Humbly asked Him to remove our shortcomings.
8. Made a list of all persons we had harmed, and became willing to make amends to them all.
9. Made direct amends to such people wherever possible, except when to do so would injure them or others.
10. Continued to take personal inventory and when we were wrong promptly admitted it.
11. Sought through prayer and meditation to improve our conscious contact with God, as we understood Him, praying only for knowledge of His will for us and the power to carry that out.
12. Having had a spiritual awakening as the result of these steps, we tried to carry this message to alcoholics and to practice these principles in all our affairs.

EVIDENCE FOR ALCOHOLICS ANONYMOUS' EFFECTIVENESS

Over the past 50 years, hundreds of studies have examined the effectiveness of AA. In recent years, there have been a number of randomised and quasi-randomised controlled trials examining AA attendance and drinking outcomes. This has enabled researchers to undertake a Cochrane review on the effectiveness of AA as well as assertive referral interventions into AA (such as Twelve-Step Facilitation; TSF interventions). There is sufficient evidence to indicate:

- AA and TSF interventions are superior to other well-established treatments (e.g., CBT) when the outcome is abstinence, and at least as effective as these other well-established treatments for other outcomes (e.g., reduced drinking intensity and alcohol-related consequences)
- members who engage more fully with the AA program tend to benefit more than those who simply attend meetings; there is a clear association between the level of involvement in AA and better patient outcomes
- by using assertive referral practices (such as twelve-step facilitation therapy), clinicians can encourage AA involvement and deepen their patient's commitment to using AA
- AA attendance is effective as part of an extended care plan, resulting in improved abstinence rates and greater treatment retention
- patients who attend AA alongside or following treatment show better long-term outcomes than those who attend either treatment or AA alone.

	RECOMMENDATION	GRADE OF RECOMMENDATION
11.1	Participation in AA is an effective strategy for maintaining abstinence from alcohol (and improving other alcohol-related outcomes), as a standalone or adjunctive approach to formal treatment.	A

FOR WHOM IS ALCOHOLICS ANONYMOUS APPROPRIATE?

Based on the 12 traditions adopted by AA's organisational body, the only requirement for membership of AA is a desire to stop drinking. Members are able to attend as many meetings as they wish, at no cost. Individuals who demonstrate a higher level of symptom severity are more likely to affiliate with AA. It is probable that AA's adherence to the disease model of alcoholism enables an individual with alcohol dependence to relinquish the belief that controlled drinking is possible in their situation.

AA also provides a new social network supportive of abstinence; for the patient who lacks such support in their home environment, this aspect of AA involvement plays an important role in relapse prevention.

A common misconception concerning AA is that members need to be religious to benefit from the program. In a review of the mechanisms by which AA is thought to aid recovery, there was little evidence to suggest that AA's specific practices or spiritual mechanisms play a significant role. Instead, recovery has been linked to common therapeutic elements that serve to improve coping skills, motivation, and perceptions of self-efficacy.

Clinicians should explain that AA is not a religion and a belief in 'god' is not a requirement to attend or receive support through the fellowship. This may be particularly important for people of non-Christian faiths and atheists.

The efficacy of AA for patients with mental health comorbidities depends on the nature and severity of the mental health problem, although there is evidence that attendance improves abstinence rates among these individuals. It is a common misconception that members of AA must not be using any psychoactive substances: as such, AA is suitable for patients taking prescribed medications for mental health disorders.

A longer duration of AA attendance in the first year of treatment and sustained involvement across 2 to 8 years has been linked to better long-term outcomes, so continued AA participation should form part of any extended care plan. This will ensure the patient maintains a social network supportive of abstinence once formal treatment is over, and is particularly important for patients who have severe symptoms or low levels of social support outside of the therapeutic environment.

REFERRING TO ALCOHOLICS ANONYMOUS

Assertive referral practices can improve AA meeting attendance and involvement, and is associated with better long-term outcomes. Referral can occur at any stage of treatment. Ideally, services should engage clinicians or peer workers by:

- providing meeting schedules and public transport timetables
- organising AA volunteers to accompany the patient to meetings
- using a 'meeting journal' (signed off by the AA meeting convener) to record attendance and reactions to the meeting
- organising a temporary sponsor.

	RECOMMENDATION	GRADE OF RECOMMENDATION
11.2	Assertive referral practices can increase rates of AA attendance and improve alcohol-related outcomes, including abstinence.	A

SMART RECOVERY®

An alternative to the AA self-help approach is Self Management and Recovery Training (SMART), a not-for-profit mutual-aid group aimed at facilitating recovery from any addictive behaviour. Within Australia, there are now over 245 groups currently operating across most states.

SMART Recovery® adopts a cognitive behavioural therapy framework, and diverges from AA in that it eliminates the focus on spirituality inherent to the AA 12-step approach. It uses a four-point recovery program (see Box 11.2) designed to enhance members' motivation and teach techniques that help manage lifestyle and behavioural difficulties. Skills training involves exposure to (among other things) cost-benefit analyses, identifying and rectifying irrational thoughts, and role-playing. Although few studies have assessed the efficacy of SMART Recovery®, there is growing evidence for its effectiveness.

BOX 11.2: THE SMART RECOVERY® 4-POINT PROGRAM™

Enhancing and maintaining motivation to abstain

Coping with urges

Problem solving (managing thoughts, feelings and behaviours)

Lifestyle balance (balancing momentary and enduring satisfactions)

People who are uncomfortable with AA's spiritual focus may find the more secular approach of SMART Recovery® a useful self-help alternative.

	RECOMMENDATION	GRADE OF RECOMMENDATION
11.3	SMART Recovery® may be an effective peer-support alternative to Alcoholics Anonymous for reducing alcohol consumption.	C

OTHER FORMS OF PEER SUPPORT

People in treatment for alcohol use disorders may access other (less established) forms of peer support, although limited research has been conducted to date examining their effectiveness. This can include support from peer workers (i.e. a person with lived experience of alcohol or other drug issues with skills learned in formal training and who are employed in treatment services) or who provide support as unpaid volunteers. This typically entails the provision of non-clinical assistance, utilising personal experiences to promote understanding and foster connection.

Independent peer support is also emerging in the online environment through community support forums such as on the national alcohol and other drug online counselling service, Counselling Online (<https://forum.counsellingonline.org.au/index.php>) and Hello Sunday Morning (<https://hellosundaymorning.org/>), as well as repositories of recovery stories (e.g., Lives of Substance). There are also Facebook groups or other social media platforms where support can be delivered by a person (or people) with lived experience of alcohol or drug problems. However, these less-established/emerging forms of peer-support have yet to undergo formal evaluation. As such, there is currently limited evidence of their effectiveness, though qualitative research and analysis of blog posts suggest that many people benefit from engaging with these alternative forms of peer support.

	RECOMMENDATION	GRADE OF RECOMMENDATION
11.4	Non-12-step/SMART online peer support may help patients reduce their alcohol consumption.	GPP

PEER SUPPORT FOR FAMILIES

With almost three-quarters of all adults in Australia negatively affected by another person’s drinking, it is not surprising that demand for help and support among affected others has increased in recent years. Several groups based on the AA model are available in Australia for families affected by a family member’s drinking. While family members can sometimes attend some specialist drug and alcohol services that a family member is receiving treatment from, there are now support services where family members can access support in their own right (e.g., for coping skills, stress management, and linkage to referral and resources). The most well-established and widely available form of peer support for family members is Al-Anon, which is a mutual-aid recovery program focused on helping friends and family members develop their coping skills, manage emotional distress, and recover from the impact of living with someone whose drinking is a problem. See <https://www.al-anon.org.au/> for information and details of meetings held across Australia. There is also Alateen – a peer support group specifically designed for teens or young Al-Anon members who have been affected by someone else’s drinking (see <https://www.al-anon.org.au/alateen> for more information and for details of meetings held across Australia).

A new group run by SMART, called BeSMART, is an eight-week long family support program designed to help people affected by the addictive behaviours of someone close to them. The program aims to increase self-care and the adoption of helpful strategies for managing difficult and stressful circumstances, as well as promoting healthier relationships with the person using alcohol or drugs. There are face-to-face meetings held in some Australian cities (e.g., Sydney) and ongoing weekly meetings online. For more information and meeting schedules visit <https://smartrecoveryaustralia.com.au/be-smart-family-friends/>.

Unfortunately, peer-support for family members has received scant research attention to date, and therefore there is limited evidence of its effectiveness, though qualitative studies, blog posts and testimonials suggest many family members find them to be helpful.

Other independent forms of family support groups exist such as Family Drug Help in Victoria, run by Self Help Addiction Resource Centre (SHARC) <https://www.sharc.org.au/family-drug-help/>. Family Drug Support Australia offers family drug support online (see <https://www.fds.org.au/>). There may be also be peer support groups specifically run for family members at the local alcohol and other drug (AOD) treatment service.

	RECOMMENDATION	GRADE OF RECOMMENDATION
11.5	Peer support groups for families may improve outcomes for family members/significant others.	GPP



CHAPTER 12 **ADOLESCENTS AND YOUTH**

Authors | Yvonne Bonomo, Amanda Norman & Adam Pastor



ADOLESCENTS AND YOUTH

Youth in Australia are at particular risk of alcohol related harms. Youth drinking, especially risky single occasion drinking (defined as consuming at least five standard drinks), remains a concern in the community given the evidence for alcohol-related harm during the early developmental years. This is echoed in the growing public support for stricter enforcement of the law against supplying alcohol to minors. Epidemiological trends show that young people in Australia are heeding the messages around alcohol harm, such that the proportion of 14–19 year olds who abstained from alcohol in 2016 was 82%. Risky single occasion drinking at least monthly continues to decline in the adolescent group, having more than halved since 2001 (39% in 2001 to 18% in 2016) but young adults (18–24 years old) remain the age group most likely to consume 11 or more standard drinks on a single occasion.

Children and young people under the age of 18 years are at greater risk of harm from drinking than adults due to a lower tolerance to alcohol, a greater propensity for risky behaviour, and the high risk of alcohol-related injury given the harmful effects of alcohol on developing brains.

Neurodevelopment, especially in regions linked to regulation of behaviour and emotion, is not complete until well into adulthood. Regular, heavy alcohol or other drug use can inhibit adolescent development, especially impairing cognitive maturation and reducing educational achievement. Excessive alcohol use in adolescence is also associated with a wide range of other co-existing problems, including difficulty with relationships (especially parents), poor school performance, low employment prospects and homelessness.

The adolescent years are a period for experimentation and socialisation with peers, which may include engaging in high-risk behaviours including risky alcohol consumption and other substance use. Longitudinal studies indicate that early alcohol use (variably defined in the literature, but generally less than 18 years of age) is associated with increased likelihood of heavy drinking continuing into young adulthood and later. Delaying onset of alcohol consumption is therefore considered safest for young people under the age of 18 years.

RECOMMENDATION		GRADE OF RECOMMENDATION
12.1	National Health and Medical Research Council (NHMRC) guidelines recommend to reduce the risk of injury and other harms to health, children and young people under 18 years of age should not drink alcohol.	A

It has long been debated whether parental supply of alcohol is a risk or protective factor for adolescent alcohol problems. Cohort studies have suggested an association between parental supply of alcohol and risky drinking but these studies had methodological limitations. However, a large prospective cohort study of almost 2000 Australian young people surveyed annually between 2010 and 2016 has shown associations between parental supply of alcohol and binge consumption, alcohol related harm as well as alcohol use disorder.

	RECOMMENDATION	GRADE OF RECOMMENDATION
12.2	Parental provision of alcohol is a risk factor for earlier onset of alcohol consumption, more frequent alcohol consumption and/or alcohol related problems.	A

ASSESSMENT

Working effectively with young people experiencing difficulties with alcohol requires the establishment of good rapport. Barriers to effective consultation with adolescents have been extensively described in the past two decades and can be classified into four broad categories: availability, accessibility, acceptability, and equity of health services. Concerns about confidentiality and privacy have been identified to be a particularly important barrier to seeking professional assistance among young people, who cite embarrassment, shame, uncertainty about access to a health professional without an adult as well as cost, as barriers to care.

Peak bodies recommend that a broad medical and psychosocial history that screens for health risk behaviours and mental health disorders is best practice for engaging effectively with young people. A systematic review suggests that this improves health outcomes in young people, although high quality evidence is still needed.

Confidentiality. A fundamental principle in working with young people is to actively reassure the young person about the confidentiality of the consultation and its limits.

Psychosocial history. A psychosocial history includes information about the social, cultural, educational and vocational background of the adolescent. There are different acronyms such as HEADDSSS that provide a framework for taking a broad psychosocial history from adolescents (see table below). In addition, with regard to alcohol, a family history of heavy alcohol or drug use also impacts on adolescents' development. Apart from genetic factors, social and environmental factors, such as being exposed to a family culture that accepts heavy drinking, may contribute to the development of alcohol use disorders in the children of those who drink heavily.

Polysubstance use is common among young people and it is therefore important to screen for use of tobacco and other drugs in addition to alcohol (see [Chapter 20](#)). In Australia, fewer adolescents and young adults are taking up smoking and the average age at which a full cigarette was first smoked is now around 16.3 years in 2016 (from 14.2 years in 2001). Daily smoking has also at least halved between 2001 and 2016 in both males and females. Currently, use of electronic cigarettes is relatively low in Australia, but younger people are more likely to

have tried e-cigarettes and there are concerns about the implications of this for public health. Young adults in their twenties are the most likely age group to use cannabis, and the average age of first cannabis use is around 18.7 years (NDSHS 2017). This group also continues to be the most likely to have used illicit drugs in the past year (28% in 2016) although this has declined from 35% in 2001 (NDSHS 2017).

THE HEADSS ASSESSMENT

The HEADSS mnemonic forms the basis for an assessment that provides a 'psychosocial biopsy', an opportunity to develop rapport, assess risk and provide a guide to any necessary interventions.

H HOME ENVIRONMENT

Where do you live? Who lives with you? How does each member get along? Who could you go to if you needed help with a problem?

Parent(s) jobs? Recent moves? Wanted to run away? Are there new people at home?

E EDUCATION/EMPLOYMENT

What do you like/not like about school/work?

What can you do well/what areas would you like to improve on? How do you get along with teachers/other students?

How are your grades; any suspensions? Changes?

Many young people experience bullying at school – have you ever had to put up with this?

E EATING/EXERCISE

Do you have meals with your family? Who cooks at home?

Are you worried about your weight? Do you think you are too thin or too fat?

Sometimes when people are stressed, they can over eat/under eat. Have you ever experienced either of these? In general, what is your diet like?

In screening more specifically for eating disorders, you may ask about body image, the use of laxatives, diuretics, vomiting or excessive exercise and rigid dietary restrictions to control weight.

A ACTIVITIES AND PEER RELATIONSHIPS

With peers? (What do you do for fun? Where? When?) With family?

Sports - regular exercise? Hobbies? Tell me about the parties you go to. Do you belong to any clubs? How much TV would you watch a night? Favourite music?

Any trouble? Crimes? Arrests?

D DRUGS/CIGARETTES/ALCOHOL

Many people at your age are starting to experiment with cigarettes/alcohol. Have any of your friends tried these or maybe other drugs like marijuana, snorting or injecting drugs, etc? How about you, have you tried any? What effects have you found? Do you have any regrets? How much are you taking, how often and has frequency increased recently?

S SEXUALITY

Some people are getting involved in sexual relationships. Have you had a sexual experience with a guy or a girl, or both?

Degree and types of sexual experience? Number of partners? Masturbation/contraception? Knowledge about STDs

Has anyone ever touched you in a way that's made you feel uncomfortable or forced you into a sexual relationship? (History of sexual or physical abuse?) How do you feel about relationships in general/about your own sexuality?

S SUICIDE/DEPRESSION/MOOD SCREEN

How do you feel about yourself at the moment on a scale of 1 to 10? What sort of things do you do if you are feeling sad/angry/hurt?

Is there anyone you can talk to? Do you feel this way often?

Some people who feel really down often feel like hurting themselves or even killing themselves. Have you ever felt this way?

Have you ever tried to hurt yourself or take your own life? What have you tried?

What prevented you from doing so? Do you feel the same way now? Have you a plan, etc.?

S SAFETY

Sun protection, immunisation, carrying weapons; for example, have you ever needed to carry a weapon to protect yourself?

Have you ever driven a car or driven with someone who was 'over the limit' or high on anything?

S SPIRITUALITY

Beliefs, religion, music, what helps them relax, etc. What are you best at?

Do you believe in another higher power? Does your family have any religious beliefs? Do you agree with them?

Source: Adapted from Goldenring, J & Cohen, E 1988; 'Getting into adolescent heads', Contemporary Paediatrics, vol. 5, pp. 75-90.

	RECOMMENDATION	GRADE OF RECOMMENDATION
12.3	Screening and brief intervention for health risk behaviours (including alcohol and drug use) and mental health disorders may improve health outcomes of young people.	B

TREATMENT

ENGAGING ADOLESCENTS AND FAMILIES IN TREATMENT

Engaging adolescents in treatment is critical to working effectively with them and the principles are similar to treatment of other chronic disorders in young people. Establishment of good rapport is required (see section on Assessment above).

Engagement and therapeutic relationships require an understanding of adolescent development and a cognitively and developmentally appropriate approach. Young people are generally influenced by the ‘here and now’ rather than future benefits of changing current drinking patterns. It is also important for health professionals to remember that young people are more interested in achieving the goals of adolescence rather than focusing on improving their health. Given this, treatment goals need to be framed as ‘relevant’ to young people. Approaches include examination of how alcohol affects their appearance and behaviour (e.g. at a party with peers), peer-reputation, ability to socialise, recreational, educational employment or sporting achievements, or impact on finances. These discussions need to be delivered by the health professional at a level that is developmentally and cognitively appropriate. Working with the young person to develop concrete short-term goals (weeks to months) is recommended.

Encouraging the young person to participate in negotiation of treatment plans facilitates engagement in treatment and empowers change. In some cases, disengagement with family may have occurred as a result of heavy drinking and other drug use. Families are an integral part of the adolescent’s world and it is therefore important to try to assist the young person to re-build the connection. Depending on the individual circumstance this may be through mediation via family counsellors or other health professionals.

In cases where adolescents are not engaging well with alcohol or drug services, specific outreach and proactive services that cater appropriately for their developmental stage and incorporate a consideration of their cultural background, lifestyle and, in many cases their family, are required.

	RECOMMENDATION	GRADE OF RECOMMENDATION
12.4	Engagement and therapeutic relationships require an understanding of adolescent development and a cognitively and developmentally appropriate approach.	GPP

INTERVENTIONS FOR ADOLESCENT ALCOHOL CONSUMPTION

Most evidence for interventions addressing adolescent alcohol use disorders look at alcohol in conjunction with other substance use, and relatively few explore these in the clinical context, instead examining interventions in the school setting. Notwithstanding this, overall, both family interventions and cognitive behavioural therapies, including individual and group-focused CBT, do appear to have a place in the approach to adolescent substance use disorders. Effect sizes however appear to diminish over time. School based interventions that explore alcohol expectancies and risky situations and work on goal setting also appear effective.

	RECOMMENDATION	GRADE OF RECOMMENDATION
12.5	Motivational interviewing, cognitive behavioural and family therapies are of benefit in reducing alcohol use in adolescents.	B

PARENTING INTERVENTIONS

Parents have an important influence on adolescent alcohol use. These parental influences can be generic, such as supportive parent-adolescent relationships, or they may be specifically alcohol-related such as parental modelling of alcohol-related behaviour or parental provision of alcohol. As noted earlier, it is increasingly evident that parental provision of alcohol does not protect young people from alcohol related harm. Parenting, or family, interventions that strengthen parenting skills such as parental nurturing and support for young people, setting boundaries and monitoring appear to improve adolescent alcohol related behaviours. There are few studies that explore strengthening parenting skills in the clinical context (e.g. community health centres, primary care, other health contexts), rather most interventions report on programs occurring in school or home contexts.

USING TECHNOLOGY IN TREATMENT APPROACHES

Ehealth or digital interventions for young people appear to have efficacy with a small reduction in quantity of alcohol consumed, number of drinking days and alcohol related problems when compared to control groups (see [Chapter 7](#)). Similarly, while interventions using mobile applications are being explored as a medium through which to reduce alcohol use, these methods are still in their infancy (see [Chapter 7](#)).

PEER-LED INTERVENTIONS

The role of peer led interventions for adolescent alcohol problems is gaining some attention in the treatment sphere. This derives from the theory that young people learn from each other, provide positive role models and have credibility among other young people. Although relatively few in number to date, and limited by selection bias and other methodological issues, studies of peer-led interventions exploring alcohol use do suggest a lower odds of alcohol use among those in peer-

led groups when compared to control groups. Further research is needed to clarify whether there is a role for this form of intervention for adolescent alcohol problems.

ADDRESSING COMORBIDITIES

Whether a mental health disorder or an alcohol problem comes first for the adolescent (temporal primacy), varies between individuals. Nevertheless, the comorbidity of mental health problems and alcohol problems is strong. Treatment of young people with alcohol problems must, therefore, include screening and addressing mental health disorders in the treatment plan, including depression, suicidal ideation, anxiety, antisocial behaviour, and a history of sexual abuse or other trauma (see section on Assessment above).

Adolescent who drink may experience a range of psychosocial crises. In these cases, outreach and crisis interventions that cater appropriately for their developmental stage and incorporate consideration of their cultural background, lifestyle and in many cases their family, should be engaged.

	RECOMMENDATION	GRADE OF RECOMMENDATION
12.6	Mental health disorders, including depression, suicidal ideation, anxiety and antisocial behaviour and a past history of sexual or other abuse or other trauma are common in young people with alcohol and other drug problems and should be considered where relevant in assessment and treatment planning.	GPP

PHARMACOTHERAPIES FOR ALCOHOL PROBLEMS

Alcohol withdrawal symptoms are rare in adolescents, reported by less than 10% of young people, but when they do occur, the treatment principles are extrapolated from adult experience and benzodiazepines should be used to manage the withdrawal.

Pharmacotherapy for alcohol use disorders (naltrexone, acamprosate and disulfiram) in young people remains limited with few controlled trials having been conducted and only small samples included. Larger studies, and especially randomised controlled trials, are still needed (Hammond Child Adolesc Psychiatric Clin N Am 25 (2016) 685–711).

	RECOMMENDATION	GRADE OF RECOMMENDATION
12.7	Limited evidence exists for the role of pharmacotherapies for alcohol use disorder in adolescents.	B

CHAPTER 13

GENDER-SPECIFIC ISSUES

Authors | Carolyn Day, Natalie White & Sharon Reid

This chapter reviews the literature on the gender-specific issues that should be considered when screening, diagnosing, and treating alcohol problems.



GENDER-SPECIFIC ISSUES

Men and women may experience alcohol use and alcohol use disorders differently due to a range of socio-cultural factors, largely stemming from women's traditional role as caregivers and homemakers. Gender roles therefore influence the ways in which both men and women are exposed to and consume alcohol, develop alcohol use disorders, seek treatment for alcohol-related problems and ultimately how these are treated.

This chapter aims to provide guidance on the different facets of screening, diagnosing and managing alcohol use for men and women. Specifically, the gender-specific aspects clinicians should consider when screening for alcohol problems or when someone presents with an alcohol problem are considered. In this chapter, 'gender' refers to the binary categories of men and women and the body of research includes almost exclusively those people whose gender aligns with the sex they were assigned at birth. Guidelines for transgender, intersex and non-binary gender people is provided in [Chapter 17](#).

As in many areas of health and medicine, much of the research has focused on men and then generalised to women. There is, however, a body of research which has considered gender-specific aspects of substance use issues, including Alcohol Use Disorder (AUD) for women, but there is far less on the gender-specific aspects for men.

EPIDEMIOLOGY

Overall, men consume more alcohol than women, both in Australia and globally. Australian men are twice as likely as women to drink daily and at levels which increase both single use and lifetime risk of harms. There is some evidence of a gender convergence, although this may actually reflect age rather than cohort effects.

GENDER AND THE DEVELOPMENT OF AN AUD

Men are more likely to develop an AUD than women. There are distinct differences in the trajectory of AUD for men and women. Women tend to progress toward use disorders more quickly than men, although evidence is mixed.

There are differences in patterns of treatment seeking between men and women. Women have been found to be less likely than men to receive treatment for AUD. Variation in receiving treatment for AUD may be related to both biological and psychosocial factors, as women presenting with psychiatric conditions are more likely to be identified with and treated for comorbid affective disorders. Women's traditional role as carers increases stigmatisation and

risk of social harms for women and their families and may impede treatment seeking, potentially resulting in late presentation for treatment.

GENDER AND THE PRESENTATION OF HARMS ASSOCIATED WITH AUD IN WOMEN

Gender may influence the context in which men and women present for treatment. Women presenting during pregnancy should be screened for alcohol use (see [Chapter 14](#)). They may also present in a crisis context, for example, with an injury associated with domestic violence (see [Box 13.1](#)), the prevalence of which is high in women with substance use histories. Men may present with injuries from alcohol-related violence, which is more common in men than women.

BOX 13.1: DOMESTIC VIOLENCE

The definition of domestic violence varies by jurisdiction. The term is often used interchangeably with “family violence” and “intimate partner violence”. For the purpose of this guide “domestic violence” refers to any physical violence; sexual abuse; emotional abuse; verbal abuse and intimidation; economic and social deprivation; damage of personal property and abuse of power between those in a domestic relationship, including intimate partners and/or family members.

Women are at increased vulnerability to disadvantage, victimisation, stigma and scrutiny around parenting and may experience greater barriers to treatment due to childcare responsibilities. Whilst both men and women may be parents, women are much more likely to be either the primary carer or a sole parent of young children and often both. In such cases, child protection needs should also be considered.

GENDER ISSUES IN THE IDENTIFICATION AND MANAGEMENT OF AUD

AUD is more likely to be under-detected in women than men. As such, greater attention to routine and opportunistic screening of women is important. Where an AUD has been identified, gender should be considered when both screening for and treating AUD. Key gender-related issues when screening for and managing alcohol-related problems are:

1. Screening both women and men for domestic violence (victim and/or perpetrator);
2. Screening for alcohol-related violence in men;
3. Screening for and managing alcohol-related problems for parents and caregivers of children;
4. Screening of and advice for about contraception for women; and
5. Gender-specific treatment programs.

DOMESTIC VIOLENCE SCREENING

Unsolicited disclosure of domestic violence is uncommon. Evidence from a Cochrane review found screening in healthcare settings does increase identification, but there is insufficient evidence that it improves outcomes, including referrals. Where screening is undertaken, the use of a screening tool is more effective, although no specific tool has been identified as superior for women with AUD. All domestic violence screening should be provided with contextual and environmental factors in mind and be trauma informed. The Royal Australian College of General Practitioners provide recommendations on how to ask questions about intimate partner violence in the general practice setting. Some Australian states and territories mandate domestic violence screening in certain public hospital settings; in New South Wales it includes drug and alcohol services (Box 13.2).

Men are more likely to be the perpetrators, rather than victims, of domestic violence. Specific tools compatible to the clinical context, such as the Revised Conflict Tactics Scale, have been developed and trialled in substance treatment settings, but have not yet been widely adopted and their overall effectiveness has not been established. There are no data on the impact of such screening. Implementation of screening in men cannot be firmly recommended at this point.

Within the usual clinical setting, referral to social work or specific community government and non-government services may be necessary to ascertain the safety and need for child protection or police involvement.

BOX 13.2: NSW HEALTH DOMESTIC VIOLENCE SCREENING QUESTIONS MANDATED IN DRUG AND ALCOHOL SERVICES

1. Within the last year have you been hit, slapped or hurt in other ways by your partner or ex-partner?
2. Are you frightened of your partner or ex-partner?
 - o If the woman answers NO to both questions, give the information card to her and say: Here is some information that we are giving to all women about domestic violence.
 - o If the woman answers YES to either or both of the above questions, continue to question 3 and 4.
3. Are you safe to go home when you leave here?
4. Would you like some help with this?

See: https://www1.health.nsw.gov.au/PDS/pages/doc.aspx?dn=PD2006_084

	RECOMMENDATION	GRADE OF RECOMMENDATION
13.1	Women should be screened for domestic violence (victimisation and perpetration) and referred to specialist services, where appropriate.	C
13.2	Men should be screened for domestic violence (victimisation and perpetration) and referred to specialist services, where appropriate.	D

GENDER AND MANAGEMENT OF AUD IN WOMEN

PSYCHOSOCIAL CONSIDERATIONS

People with AUD may be the carers of young children, and this is especially likely for women. As noted above, screening for domestic violence should be undertaken to assess child protection needs. Outside of the possibility of violence, a child protection assessment should be considered for anyone living with children under 16 years of age and being treated for AUD. It is critical to ask, rather than assume, whether an individual is caring for or living with children. Childcare responsibilities should be considered throughout treatment planning.

There are few alcohol-specific parenting programs, but a range of parenting programs and support programs for vulnerable families are available. Referrals should be made to community programs or social work where necessary. Men are much less likely to be the primary carer of children, but parenting responsibilities should also be reviewed. Improving parenting and parenting engagement may be a protective factor for men with substance use disorders.

	RECOMMENDATION	GRADE OF RECOMMENDATION
13.3	Where residential treatment is appropriate, parents, especially mothers, should be referred to facilities with integrated parenting and substance use programs.	C
13.4	Parents should be referred to outpatient programs when feasible.	GPP

CONTRACEPTION

Contraception will be an important consideration for women of child-bearing age who regularly consume alcohol, irrespective of their level of consumption or whether they have an AUD. An individual's level of sexual activity with males can fluctuate over time and therefore the potential need for contraception should be periodically reviewed with the woman.

Evidence supports the long acting reversible contraceptives (LARC), such as intra-uterine

devices and hormonal implants, as these are not user dependent and should be recommended. Integrating contraceptive care into drug and alcohol treatment services has received some attention but has tended to focus on women experiencing other substance use disorders and the evidence currently is weak.

	RECOMMENDATION	GRADE OF RECOMMENDATION
13.5	Women in their child-bearing years who use alcohol should be counselled about contraception use and, where possible, prescribed or referred for LARC.	B

PHARMACOTHERAPY FOR RELAPSE PREVENTION

There is currently no clear evidence for sex-specific pharmacotherapy in AUD treatment. This may reflect under-representation of women in some of the research. The safety of pharmacotherapies used for AUD in pregnancy has not been established for most pharmacotherapies (see [Chapter 14](#)); therefore women in their childbearing years who are engaged in sexual activity with males and prescribed any of these pharmacotherapies should be provided with contraceptive advice (see above).

GENDER SPECIFIC/SENSITIVE INTERVENTIONS

The evidence base for gender-specific programs is mixed and though much of the literature has focused on substance use disorders, which has typically included AUD, but little is specific to alcohol. Gender-specific options should be considered when there are: i) practical considerations which warrant treatment segregation, such as women with young children, or if there is a sexual assault history or other gender-related trauma); and ii) programmatic considerations, for example, services with integrated domestic violence or parenting programs. Clinicians should consider each of the above aspects to inform their recommendation for generic or gender-specific treatment, especially where residential treatment is being considered. The safety of women in mixed residential settings may require specific protection but further consideration is beyond the scope of these Guidelines.

	RECOMMENDATION	GRADE OF RECOMMENDATION
13.6	Gender-specific inpatient treatment should be considered for women with alcohol use disorders, where inpatient treatment is warranted.	C
13.7	Gender-specific outpatient treatment should be considered for women with alcohol use disorders, where outpatient treatment is warranted.	D

	RECOMMENDATION	GRADE OF RECOMMENDATION
13.8	Gender-specific inpatient treatment may be considered for men with alcohol use disorders.	GPP

CONCLUSION

There are multiple gender-specific issues which should be considered when screening and managing people with AUD. For women, the key issues are diagnosis, contraception, domestic violence, parenting and child protection, and the possible need for gender-specific treatment. Key issues for men are centred around violence, both as perpetrators and victims of alcohol-related violence and as perpetrators of domestic violence. Whilst relevant for men, parenting is a particularly important issue for women as they are much more likely to be the sole or primary caregiver of young children, which may also serve as both a motivator and a barrier to accessing treatment.



CHAPTER 14 **PREGNANT AND BREASTFEEDING
WOMEN**

Authors | Lucinda Burns & Delyse Hutchinson

This chapter presents a summary of the impact and treatment of alcohol use in women who are pregnant and/or breastfeeding. Sections included are the impact on the mother and the developing foetus; screening options; currently available psychological and pharmacotherapy treatments and broader policy implications.



PREGNANT AND BREASTFEEDING WOMEN

Limitations in the available evidence make it impossible to set a 'safe' or 'no-risk' drinking level for women to avoid harm to their unborn children. A policy of not drinking alcohol is therefore adopted as the safest option for pregnant women, those who may soon become pregnant and those who are breastfeeding.

NHMRC GUIDELINES AND ADVICE ABOUT PREGNANCY AND BREASTFEEDING

Based on available evidence, the National Health and Medical Research Council (NHMRC) (2020) provides guidance and advice on alcohol use during pregnancy and breastfeeding.

GUIDELINE 3

To reduce the risk of harm to their unborn child, women who are pregnant or planning a pregnancy should not drink alcohol. For women who are breastfeeding, not drinking alcohol is safest for their baby.

PREGNANCY

The evidence from peer reviewed literature suggests that exposing the foetus to alcohol may result in adverse effects, ranging from mild to severe and affecting child's cognitive, behavioural and physical development. In addition, alcohol exposure is a strong predictor of premature or preterm birth, and low birth weight for gestational age.

The NHMRC (2020) gives the following advice about alcohol consumption during pregnancy:

- Not drinking alcohol is the safest option.
- The risk of harm to the foetus is highest when there is high, frequent maternal alcohol intake.
- The risk of harm to the foetus is likely to be low if a woman has consumed only small amounts of alcohol before she knew she was pregnant or during pregnancy.
- The level of risk to the individual foetus is influenced by maternal and foetal characteristics and is hard to predict.

WHAT CAN BE SAID TO WOMEN WHO HAVE CONSUMED A MINIMAL AMOUNT DURING PREGNANCY?

Women who have consumed small amounts of alcohol prior to pregnancy awareness or during pregnancy may be reassured that there is no consistent evidence this is harmful to the unborn child and that any impacts are likely to be minimal. Women who remain concerned should seek specialist medical advice.

	RECOMMENDATION	GRADE OF RECOMMENDATION
14.1	Women who are or who may become pregnant should be advised of current NHMRC guidelines, which recommend abstinence. Clinicians who provide advice to pregnant women should familiarise themselves with the risk analysis described in those guidelines. The risk of harm to the foetus is highest when there is high, frequent, maternal alcohol intake.	B
14.2	Women may be reassured that the risk of harm to the foetus is likely to be low if a woman has consumed only small amounts of alcohol before she knew she was pregnant or during pregnancy.	B

BREASTFEEDING

Existing evidence suggests that consumption of two standard drinks or more per day may adversely affect lactation, infant behaviour (for example, feeding, sleep–arousal cycle), and the psychomotor development of the breastfed baby. However, the lack of high quality research makes it difficult to give definitive advice on safe levels.

The NHMRC (2020) gives the following advice about breastfeeding mothers consuming alcohol:

- Not drinking alcohol is the safest option.
- Women should avoid drinking alcohol in the first month after delivery until breastfeeding is well established.

After that:

- alcohol intake should be limited to no more than two standard drinks a day
- women should avoid drinking immediately before breastfeeding
- women who wish to drink alcohol should consider expressing milk in advance.

For the average woman, it takes approximately two to three hours to metabolise one standard drink of alcohol such that alcohol content in breastmilk returns to zero. However, this can vary depending on a range of factors such as body weight, metabolism, and food and water intake.

Importantly, the risk of accidental injury and/or harm to mother and infant if the mother is intoxicated while breastfeeding is high. For example, she may become drowsy, and accidentally drop, or smother, her baby. A breastfeeding mother needs to be advised to have a 'safety plan' for when she does drink alcohol. The plan should include advice regarding not sleeping in the same bed (i.e. co-sleeping).

	RECOMMENDATION	GRADE OF RECOMMENDATION
14.3	Breastfeeding women should be advised of current NHMRC guidelines that recommend abstinence. If a woman wishes to drink, it is recommended that she breastfeeds before drinking. Otherwise, wait until the blood alcohol returns to zero (approximately two hours per standard drink consumed) before resuming breastfeeding. It is not necessary to express or discard milk before this time.	B

SCREENING AND BRIEF INTERVENTION DURING PREGNANCY

In pregnant women, quantity–frequency estimation is recommended to detect any consumption of alcohol (see [Chapter 4](#)).

The Tolerance, Annoyance, Cut down and Eye opener (T-ACE) and Tolerance, Worried, Eye-opener, Amnesia, K-Cutdown (TWEAK) screening tests were designed for use with pregnant women and are adequately sensitive for detecting high-risk levels of consumption; in this the T-ACE performs better than TWEAK. T-ACE and TWEAK questionnaires may be used in this population to detect consumption at levels likely to place the foetus at significant risk of alcohol-related harm (see [Appendix 1](#)). Neither instrument is designed to detect low-level use of alcohol. The Alcohol Use Disorders Identification Test – Consumption (AUDIT-C) is a simple measure of quantity frequency that can be used to detect the amount of alcohol consumed.

Brief interventions (see also [Chapter 6](#)) are effective in reducing drinking in pregnancy in non-alcohol dependent women and should be provided to all pregnant women as well as those contemplating pregnancy. Partner participation has also been shown to increase the effectiveness of brief interventions.

It has been demonstrated that brief interventions in this population result in:

- increased rates of abstinence before conception and during pregnancy
- significant reduction of both daily and binge drinking
- reduced foetal mortality rate
- higher birth weight and birth length in the newborn.

	RECOMMENDATION	GRADE OF RECOMMENDATION
14.4	Brief interventions (including motivational enhancement therapy (MET) are recommended for use during pregnancy, including the partner, where relevant.	A

IMPACT OF ALCOHOL CONSUMPTION ON THE MOTHER DURING PREGNANCY

It is recognised that drinking alcohol during pregnancy can pose serious risks not only to the developing baby but also to the mother. It is important, therefore, for women, both prior to and during their childbearing years, to be well educated about the toxicity of alcohol to themselves.

It is essential that women who have consumed or continue to drink alcohol during their pregnancy, at whatever level, see this as a health concern for themselves, as well as their foetus, but that they are not made to feel guilty. Women need to feel supported in receiving the best obstetric and social care possible, and practical assistance in giving up or more safely managing their drinking.

Serious medical complications that a pregnant woman who drinks may experience include:

- alcohol withdrawal during pregnancy, labour or post-delivery miscarriage
- injuries due to intoxication
- dehydration
- gestational diabetes
- excessive vomiting
- poor nutrition
- hypertension
- hypoglycaemia
- reduced immune system function
- premature birth
- stillbirth.

ALCOHOL INTOXICATION DURING PREGNANCY

Alcohol intoxication is a serious risk to a pregnant woman as well as to her foetus.

A pregnant woman with severe alcohol intoxication is at immediate risk of overdose, vomiting, aspirating and choking, injury, miscarriage or premature labour. The progress of her pregnancy and her wellbeing therefore needs to be assessed immediately, preferably by an experienced midwife, in consultation with the medical/obstetric team. She must be closely observed and nursed in a safe environment.

If available, undertake a cardiotocograph for electronic foetal monitoring, and follow up with an ultrasound if appropriate. Hospital admission is recommended for close monitoring, possible medical intervention, and a safe environment to prevent accidental injury.

Arrange for further assessment and follow-up throughout her pregnancy for problems with alcohol, general health and nutrition, psychological wellbeing, mental health problems, and social issues such as family violence.

	RECOMMENDATION	GRADE OF RECOMMENDATION
14.5	If a woman presents intoxicated during pregnancy, hospital admission may be recommended to assess foetal safety, maternal safety, and for comprehensive assessment and care planning.	GPP

ALCOHOL WITHDRAWAL DURING PREGNANCY

A pregnant woman at risk of withdrawal is typically drinking six standard drinks or more on most days. Physiological tolerance/dependence has occurred, and she will meet criteria for an alcohol use disorder.

If a woman is drinking at these levels and she abruptly reduces or stops drinking she may experience alcohol withdrawal. This can occur anytime during her pregnancy as well as during labour and after delivery.

If the woman has been drinking heavily shortly before delivery or has undergone withdrawal during labour or delivery, the newborn is at risk of acute alcohol withdrawal. Onset of withdrawal for the newborn may begin 24 to 48 hours after delivery, depending on the time of the mother's last drink.

CARING FOR A PREGNANT WOMAN IN ALCOHOL WITHDRAWAL

A pregnant woman at risk of alcohol withdrawal should be closely monitored and may need to be hospitalised at any stage of gestation, as alcohol withdrawal alone is potentially fatal, and there are additional risks to her health and that of her foetus at this time. Ideally her antenatal

care plan will mean that her baby will be delivered in a hospital where both she and baby can receive specialised midwifery and medical care, as well as longer-term health and social support.

The woman requires close observation and careful monitoring, generally using a withdrawal scale (see [Chapter 8](#)), and supportive nursing and medical care to reduce risk of complications for her and baby related to withdrawal (see [Chapter 8](#)).

GUIDELINES FOR TREATING A PREGNANT WOMAN AT RISK OF WITHDRAWAL INCLUDE:

- If she starts withdrawing, she needs immediate specialist medical and nursing care in a well-equipped hospital.
- She needs to be closely observed and monitored for any progression of signs and symptoms, and medically treated to prevent and manage any complications to her and the foetus.
- She will need medical and nursing care for at least 5 days after the onset of withdrawal and, depending on any other factors or co-existing medical conditions, potentially longer.
- It is important to inform the receiving clinical team about her drinking history, the time of her last drink, her blood alcohol concentration when examined, vital signs and withdrawal scores (see [Chapter 8](#) and [Appendix 3](#)).

It is particularly important to report any history of alcohol withdrawal complications such as seizures or hallucinations, or delirium tremens, and risk of thiamine deficiency leading to Wernicke's encephalopathy.

Urgent consideration should be given to starting nutritional assessment and management. Parenteral thiamine supplementation should be commenced before administration of any glucose (see [Chapter 8](#)). Folate supplementation should be given (also parenterally, if doubts about likely absorption of oral tablets), as alcohol misuse is associated with folate deficiency, which is a well-documented factor in neural tube defects. Other vitamin deficiencies should be considered as well as overall protein and calorie status. These deficiencies typically respond well to the availability of a balanced diet in hospital once withdrawal has resolved but may necessitate a longer hospital admission.

Once she has recovered from acute withdrawal and is willing, she should undergo a full drinking history and comprehensive assessment, including assessment of her family and any other children in the home. A comprehensive care plan should be developed, informed by clinical guidelines for management of pregnancy (Clinical Practice Guidelines: Pregnancy care)¹ and substance use in pregnancy (Clinical guidelines for the management of substance use during pregnancy, birth and the postnatal period)².

The specialist medical and nursing team need to ensure the woman's general practitioner, obstetrician and/or midwife are notified immediately, and offer them clear guidelines on her assessment, stabilisation, medical, nursing and psychological management and support needs.

¹ <https://www.clinicalguidelines.gov.au/portal/2589/clinical-practice-guidelines-pregnancy-care-2>

² <https://www.health.nsw.gov.au/aod/professionals/Pages/substance-use-during-pregnancy-guidelines.aspx> O18-edition

	RECOMMENDATION	GRADE OF RECOMMENDATION
14.6	Alcohol withdrawal during pregnancy should be managed in a general hospital, ideally in a high-risk maternity unit in consultation with a specialist drugs-in-pregnancy team. Diazepam may be given as needed to control withdrawal. Nutritional intervention should be initiated, including parenteral thiamine, folate replacement and assessment for other supplementation.	GPP

HEALTH CARE SERVICE POLICIES AND PROTOCOLS FOR MANAGING PREGNANT WOMEN AFFECTED BY ALCOHOL OR OTHER DRUGS

Each healthcare service needs to have clear policies and clinical protocols to assess and respond to such situations so pregnant women can be sympathetically and effectively cared for immediately, as well as in the longer-term. Having clear policies and protocols will help to support duty of care and good practice in this regard.

Key questions to ask concerning the pregnant woman in withdrawal are:

- What stage of gestation is she?
- What is her general health status?
- Is she at risk of premature labour?
- Is she at serious risk from physical or mental illness, injury, poor nutrition, dehydration, infection, violence?
- How far away is she from the nearest hospital?
- Does she have dependent children or family members who rely on her (for example, is she a sole parent or carer of others)?
- Does she need temporary childcare while she is ill?

Close follow-up and support after discharge is recommended. Specialist treatment for her drinking as well as the importance of antenatal care should be discussed. Practical assistance such as assistance with transport and childcare considerations, can enhance engagement in treatment.

	RECOMMENDATION	GRADE OF RECOMMENDATION
14.7	Women who present during pregnancy with serious alcohol (and/or other drug) problems should be admitted to an appropriate hospital unit for stabilisation, comprehensive assessment and care planning.	GPP

	RECOMMENDATION	GRADE OF RECOMMENDATION
14.8	Assertive follow-up is recommended for antenatal and postpartum care, substance misuse treatment, and welfare support and child protection.	GPP

TREATMENT OF ALCOHOL DEPENDENCE DURING PREGNANCY

Brief interventions, in particular motivational enhancement therapy (MET), can be effective in reducing alcohol use in pregnancy.

The current pharmacotherapies for alcohol dependence are listed in category B meaning these drugs have been taken by only a limited number of pregnant women and women of childbearing age, and no increase in the frequency of malformation or other direct or indirect harmful effects on the human foetus has been observed. Acamprosate and disulfiram are Category B2, indicating that studies in animals are inadequate or may be lacking, but available data show no evidence of an increased occurrence of foetal damage. Naltrexone is Category B3 indicating that studies in animals have shown evidence of an increased occurrence of foetal damage, the significance of which is considered uncertain in humans. Accordingly, these medications cannot be routinely recommended. If considered, the potential risks and benefits should be carefully considered in consultation with the patient.

	RECOMMENDATION	GRADE OF RECOMMENDATION
14.9	Pharmacotherapy to maintain abstinence from alcohol cannot be routinely recommended during pregnancy due to insufficient safety data.	D

HEALTH EFFECTS OF ALCOHOL ON THE FOETUS

The harmful effects of drinking alcohol during pregnancy on the foetus appear to depend on how much alcohol the mother consumes during her pregnancy. In addition, factors such as poor nutrition, other drug use, homelessness and poor physical health also contribute to poor outcomes and must be taken into account in the history of the mother and when evaluating the health of the foetus and infant.

These problems range from mild to severe. The extent of alcohol-related harm may not become evident until the child is older and behavioural and learning problems become evident.

FOETAL ALCOHOL SPECTRUM DISORDERS

Foetal Alcohol Spectrum Disorders (FASD) are associated with foetal exposure to alcohol. The expression of FASD is found in children whose mothers have a history of chronic heavy alcohol use and/or frequent heavy episodic (i.e., binge) alcohol use in pregnancy. Symptoms range from mild to severe and may involve physical, neurological and behavioural problems.

Babies affected by FASD can experience a range of serious health and developmental problems, including:

- significant learning difficulties
- intellectual disability
- poor eyesight and hearing
- poor coordination and motor skills
- defects of the face and bones
- heart, liver and kidney defects
- slow physical growth after birth.

No blood or laboratory tests are currently available to help diagnose foetal alcohol spectrum disorders. Diagnosis therefore relies on a specialist's assessment of the child's growth and development, any characteristic facial features and physical disorders, central nervous system dysfunction (including intellectual ability), combined with confirmation, where possible, that the mother consumed alcohol during her pregnancy.

NEONATAL WITHDRAWAL

Neonatal withdrawal occurs because the flow of alcohol from the mother's bloodstream through the placenta stops suddenly after delivery. When there is concern that a pregnant woman may be alcohol dependent or regularly drinks heavily, it is important to closely monitor the newborn for onset of alcohol withdrawal. Signs and symptoms of alcohol withdrawal in a newborn baby include:

- tremor
- irritability
- seizures
- bloated abdomen
- vomiting.

Emergency medical treatment and/or evacuation of the newborn will be needed if there are severe signs or symptoms of neonatal alcohol withdrawal.

A specialist service should be consulted and arrangements made for assessment and diagnosis of foetal alcohol syndrome if such expertise is unavailable locally. It is also necessary

to sensitively prepare the mother, father and family for the need for future support and assessment of any of the less recognisable foetal alcohol spectrum disorders.

	RECOMMENDATION	GRADE OF RECOMMENDATION
14.10	It is recommended that management of infants with neonatal alcohol withdrawal be undertaken in consultation with a specialist unit.	GPP
14.11	It is recommended that infants born to women who have consumed alcohol regularly during pregnancy be carefully assessed for foetal alcohol spectrum disorders by a paediatrician aware of the maternal history, with further management directed by the appropriate experts.	GPP

PROVIDING SUPPORT TO MOTHERS AND BABIES AND EDUCATION TO THE PARTNERS IN THEIR LIVES

SUPPORTING PREGNANT WOMEN, MOTHERS AND BABIES

To increase the likelihood of healthy outcomes for mother and baby, women need to trust their healthcare providers and feel they receive good advice and support. Clinicians can earn this trust by being available, approachable, non-judgmental and willing to care for and support their pregnant and breastfeeding patients even if they choose to drink.

EDUCATING PARTNERS AND FAMILY

It is important that partners be educated about the risks associated with women drinking during pregnancy and how they can support their female partner, and any other family members, during pregnancy and breastfeeding. In particular, close family can best support women who are pregnant or breastfeeding by not drinking near them, or by refraining from drinking.

	RECOMMENDATION	GRADE OF RECOMMENDATION
14.12	Assessment of the family unit is an essential aspect of managing substance use in women. Intervention should be directed to the whole family unit to reduce consumption of alcohol.	GPP

CULTURAL CONSIDERATIONS

Beliefs about pregnancy and childbirth among women from diverse cultural backgrounds can differ between women and their healthcare providers. For example, an Indigenous woman might believe that her pregnancy is connected to her traditional Dreaming.

Health messages about the risks of drinking during pregnancy and breastfeeding need to account for differing cultural beliefs (see also [Chapter 15](#) and [Chapter 16](#)).

For some women who hold particular cultural beliefs about pregnancy, it may be useful to help them consider not drinking any alcohol at all or only drink at very low-risk levels throughout their childbearing years.

Differing cultural beliefs may at least partially explain why some women do not present for antenatal care until late in their pregnancy. Another factor may be that they have limited access to acceptable and 'culturally safe' services

	RECOMMENDATION	GRADE OF RECOMMENDATION
14.13	Aboriginal and Torres Strait Islander women should be offered referral to culturally appropriate clinical services.	GPP
14.14	Women from culturally diverse backgrounds should be offered referral to culturally appropriate clinical services.	GPP

ALCOHOL AND MENTAL HEALTH PROBLEMS

Pregnancy and new motherhood can be a less than positive experiences for some women. Women are particularly vulnerable if they have serious mental health problems, such as depression and anxiety, post-traumatic stress disorder or a psychotic illness, and/or co-existing alcohol dependence (comorbidity/dual diagnosis). Family violence is also of serious concern in Australia and all women should be screened for this and appropriate referral provided.

Like any pregnant or new mother, it is important that her aspirations, life skills and particular needs are acknowledged, along with her fears and challenges about her pregnancy and parenting. A woman's health carers and other service providers need to build a strong therapeutic relationship with her, and ensure they have collaborative relationships between themselves that can ensure her needs are well understood and responded to holistically, so she can be helped to manage her broader life challenges at this time.

It is important to explore issues of guilt about the effect of substance use on the infant, and to educate each woman about the likely outcomes in her case.

Linking women with health services and birthing programs early in pregnancy, or as soon as possible, is crucial to providing them with the mental health and alcohol comorbidity expertise and any culturally appropriate support they may require.

A partner may also experience depression or anxiety, or other mental health problems, and may feel isolated from his/her partner and her baby. Acknowledging that parenting and a change in family relationships can be stressful for both parents can be the first step in treating mental health and comorbidity problems.

Linking mothers and partners with appropriate services and local support groups, and/or being available for counselling or an informal chat, are thus important elements that can help women in both pregnancy and parenthood.

	RECOMMENDATION	GRADE OF RECOMMENDATION
14.15	Substance use, mental health and family violence screening, referral and appropriate follow-up are essential components of an integrated care plan for all pregnant women.	GPP

CHAPTER 15

ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLES

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This chapter provides guidance on managing unhealthy alcohol use among Aboriginal and Torres Strait Islander people. This includes care of those who are drinking above recommended limits, whether or not there is an alcohol use disorder present. Content of this chapter is based on both consultation with Aboriginal and Torres Strait Islander health professionals and communities and on published research. Much of the published research on treatment approaches among Aboriginal and Torres Strait Islander peoples has been qualitative in nature.

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ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLES

DRINKING CONTEXT

Aboriginal or Torres Strait Islander peoples are less likely to drink alcohol than non-Indigenous Australians. Those who do drink, drink less often, but are more likely to drink at risky levels. There are few data on the prevalence of alcohol use disorder among Aboriginal or Torres Strait Islander communities.

For Aboriginal or Torres Strait Islander Australians, unhealthy alcohol use typically occurs on a background of social and economic disadvantage, and often on a personal and community-wide experience of trauma, grief and stress. Transgenerational trauma and enduring impacts of colonisation, including impacts of child removal policies and ongoing racism, are risk factors for poor mental health and unhealthy drinking. Alcohol consumption also typically occurs in the context of complex medical and sometimes mental health issues. Accordingly, treatment needs to be mindful of these factors, and be combined with support to address them where possible.

Aboriginal or Torres Strait Islander people can face many barriers to accessing mainstream (general population) alcohol treatment services, namely:

- a lack of cultural appropriateness of service delivery
- language barriers for those from remote regions
- concerns about confidentiality
- shame, fear of being judged, or discrimination

- fear of child removal
- lack of transport or childcare
- services which exclude clients who have significant mental or physical health comorbidities, those on opioid treatment programs, pregnant women or families
- lack of awareness of available services, including outpatient options.

Given these barriers to treatment services, respectful and non-judgemental care is required. Where possible and safe to do so, treatment should be provided at the point of detection of unhealthy drinking. If referral is needed, support should be offered to help a client access that service.

Engagement is key; engagement with individuals and ideally also with community. The Aboriginal or Torres Strait Islander perspective of wellbeing includes the individual in the context of family, community and country. Care should be holistic, considering mental and physical health, socio-economic needs including housing, relationships with family community, and culture. Where desired by the client, members of family or community can be involved in care.

Cultural training and resources should be available to non-Indigenous clinicians to help them work in a culturally appropriate way. Working in partnership with Aboriginal and Torres Strait Islander health staff can increase their capacity to deliver appropriate and accessible care.

	RECOMMENDATION	GRADE OF RECOMMENDATION
15.1	The clinician's approach should be informed by respect for the client's culture and awareness of their own cultural perspective and the privilege that may have come with it.	GPP
15.2	Clinicians and associated staff should seek cultural training, to ensure a culturally secure approach to engaging clients, asking about alcohol and offering treatment.	GPP
15.3	Recurrent relapse can cause shame, which may be increased in the presence of internalised racism. The clinician should understand and respond to alcohol dependence as a chronic, relapsing condition and be respectful and empathic.	GPP
15.4	The clinician and treatment services should advocate for housing and social needs of their individual clients.	D
15.5	Provide flexibility of access to services where possible (e.g., drop in clinics), acknowledging the many family commitments or pressures on an individual's time.	GPP

IMPORTANCE OF ABORIGINAL AND TORRES STRAIT ISLANDER STAFF AND SERVICES

Mainstream (general population) alcohol treatment services can reduce barriers to treatment access and improve the cultural appropriateness of care by employment of Aboriginal or Torres Strait Islander staff. Where possible (and acceptable to the patient) non-Indigenous health professionals, should work in partnership with an Aboriginal or Torres Strait Islander health professional to increase understanding of the patient and their context, and ensure quality and secure care.

There are many pressures on Aboriginal or Torres Strait Islander health professionals, including service and community expectations. To develop and maintain a skilled Aboriginal and Torres Strait Islander drug and alcohol workforce, there is need for secure funding, job security, pay equity and ongoing opportunities for training and support.

	RECOMMENDATION	GRADE OF RECOMMENDATION
15.6	When acceptable to the patient and possible, non-Indigenous clinicians should work in partnership with an Aboriginal or Torres Strait Islander health professional.	GPP
15.7	Aboriginal health practitioners should be supported by increased job security, pay equity, and support for professional development.	GPP

Aboriginal or Torres Strait Islander Community-Controlled Health Services (ACCHSs) offer culturally acceptable, accessible and comprehensive healthcare to local communities. They have been shown to improve broad health outcomes for Aboriginal and Torres Strait Islander peoples. Accordingly, ACCHSs have great potential to provide alcohol screening, brief interventions (**Chapter 6**), and onsite treatment for Alcohol Use Disorders. However, there are many pressures for these services, including the complex health and social needs of their clients. Support for these services may be needed to make this possible. Partnerships between mainstream specialist services and ACCHSs can result in 2-way learning. However, such partnerships need sufficient time and funding to mature.

Where specialist services are available, support may be needed for clients to attend those, because of the many barriers to service access, such as stigma, or lack of transport.

	RECOMMENDATION	GRADE OF RECOMMENDATION
15.8	Given barriers to treatment access, Aboriginal community controlled organisations should be supported to offer the full range of ambulatory treatments for unhealthy alcohol use, including for alcohol dependence.	GPP
15.9	Mainstream and Aboriginal or Torres Strait Islander community-controlled health services should work in partnership where possible.	GPP

ENGAGEMENT, SCREENING AND ASSESSMENT

There can be sensitivities around discussing alcohol use, especially if the client perceives or fears discrimination or is ashamed of harms from their drinking. It is important for the clinician to take time to build rapport with the client. Ideally, screening will be preceded by informal conversation to build a relationship between clinician and client. Asking the client “Who’s your people?” and “Where’s your country?” may help to show respect and interest, as well as help the clinician place the healthcare needs of the client in a cultural context of their relationships to family and country. Wherever possible, a consultation should be long enough to allow an unrushed approach.

If the client seems uncomfortable in a face-to-face interview, sitting alongside the person rather than in front of them, and having a less clinical environment (e.g. with art on the wall, or being outdoors) may help. Some Aboriginal or Torres Strait Islander individuals from (or in) more traditional communities may find a series of direct questions intrusive. An unrushed, conversational style may be more comfortable. In more traditional Aboriginal or Torres Strait Islander communities it can be respectful (for patients and clinicians) to avoid eye contact. This should not be misinterpreted as evasiveness. The clinician should also be alert to other cultural protocols, including around interactions with the other gender, or respect for older people, and seek guidance as needed.

	RECOMMENDATION	GRADE OF RECOMMENDATION
15.10	The clinician should allow sufficient time for an unrushed and conversational approach. This can help to build a respectful relationship with the patient and for the patient to feel secure to share information about potentially sensitive issues, such as drinking.	GPP

Converting drinking into ‘standard drinks’ can be challenging for the patient (or the clinician), especially when drinking is from non-standard containers. The challenge is increased if the person is from a remote area where English is a second (or third, or fourth) language and where numbering systems may differ. Asking the type, size and fullness of containers that clients drink from is likely to improve the accuracy of screening. Visuals aids can be used to help identify containers. It is also important to ask about sharing of alcohol, as some clients may report on how much the group drank rather than their own drinking.

In terms of screening tools, the 3-item AUDIT-C (a shortened version of the Alcohol Use Disorders Identification Test, that only includes its three consumption questions) has been successfully used with Aboriginal or Torres Strait Islander patients in a primary care setting. It has been found to be less time-consuming and is potentially less ‘invasive’ than the full 10-question AUDIT, but provides comparable results.

The WHO-ASSIST (and ASSIST-Lite) which screen for alcohol and other drugs risk jointly have also been used, but not validated, in Aboriginal or Torres Strait Islander settings. The Indigenous Risk Impact Screen (IRIS) was developed and validated specifically for Aboriginal or Torres Strait Islander settings, and screens jointly for alcohol and other drug disorders and mental health issues.

In some communities, intermittent or episodic drinking may be common. Clients may have long “dry patches”, where they may go months without drinking until there is a specific event (e.g. sorry business [grieving after a death], football grand final). Accordingly, the quantity-frequency method of asking about alcohol consumption, or asking about a “usual” drinking pattern may sometimes pose challenges. As an alternative screen for unhealthy drinking, the clinician can ask about the quantity of alcohol consumed on the last drinking occasion, and the timing (i.e. date) of the last 2-4 occasions. If a person says they do not usually drink, this may reflect their usual drinking status. Ask about high risk drinking on special occasions, such as football grand final or New Year.

	RECOMMENDATION	GRADE OF RECOMMENDATION
15.11	An annual health check in primary healthcare settings should include screening all patients for unhealthy alcohol use (drinking over recommended limits) at least once a year using a validated tool.	B
15.12	Validated alcohol screening tools include AUDIT-C or the quantity and timing of last two occasions of drinking. The IRIS tool can be used to provide joint screening for alcohol, drug and mental health disorders. ASSIST-lite can be used for screening for alcohol and drugs.	B

	RECOMMENDATION	GRADE OF RECOMMENDATION
15.13	Assessment of drinking should include asking about container type and fullness, sharing of alcohol, and irregular drinking patterns (e.g. special occasions only).	B
15.14	If a patient has not had access to alcohol (e.g. in prison or in a 'dry' region) the clinician should ask about drinking when the person last had ready access to alcohol.	GPP

ASSESSMENT

If a person has evidence of unhealthy drinking, fuller assessment is needed. This should include asking about past withdrawal symptoms, such as 'grog shakes' or history of seizures, in order to predict severity of future withdrawal. Individuals who drink episodically or intermittently may experience less severe (or no) withdrawal symptoms when they stop drinking despite a relatively high consumption per occasion and other features of dependence.

A sensitive assessment of harms can help the patient reflect on the impacts of alcohol on a number of areas of their life (e.g. exploring these issues gently and using reflective listening). One culturally secure example of a holistic approach to assessing the harms of alcohol or drug-related harms is the 'Seven L's' model of the Strong Spirit Strong Mind program¹. This considers the individual in the context of family, community and culture.

	RECOMMENDATION	GRADE OF RECOMMENDATION
15.15	A holistic and integrated approach to assessment and care should be used, considering the client in the context of the family, the community, the country and environment (urban/remote).	GPP
15.16	When assessing likely withdrawal severity, consider episodic or intermittent drinking patterns as well as past withdrawal severity.	GPP

BRIEF INTERVENTION

Brief interventions (BI; or brief 'yarn' on alcohol; chapter 6) should be offered to support clients to re-think their drinking, at the point when unhealthy alcohol use is detected. This should be based on the client's priorities, which may reflect their priorities about family or community relationships, as much as their personal health.

¹ <https://www.mhc.wa.gov.au/about-us/our-services/campaigns-and-programs/strong-spirit-strong-mind-aboriginal-programs/>

	RECOMMENDATION	GRADE OF RECOMMENDATION
15.17	A discussion of drinking (brief intervention) and, where needed, treatment, should be offered at the point of detection of unhealthy drinking, even if referral to specialist services is also offered.	GPP
15.18	Brief intervention or treatment should be founded on the patient's priorities, whether about health, family or community.	GPP

TREATMENT OF ALCOHOL DEPENDENCE

Treatment approaches should be tailored to the individual, family and community contexts, and to patient preference. Patients can be offered the best of 'Western' and traditional care: for example, relapse prevention medicines, plus men's groups or cultural approaches.

Given the barriers to accessing specialist services, wherever possible and safe to do so, treatment for dependence and/or harm reduction approaches, should be initiated at the point of detection, even if referral to a specialist services is also needed.

Choices are important for treatment setting: some prefer the cultural security and holistic care of an ACCHS for treatment of alcohol dependence, and some like the anonymity of a mainstream specialist treatment service.

FAMILY, COMMUNITY AND CULTURAL APPROACHES

Treatment should consider available strengths in the individual, family or community. Sometimes individuals may be able to access the support of Elders in their efforts to change their drinking. If the individual lives with a relative or partner who drinks, consider assessing the need for treatment for that person.

A wide range of cultural approaches have been used by Aboriginal or Torres Strait Islander agencies or communities, including men's or women's groups, cultural enhancement, and returning to country. Activities that are meaningful and promote connectedness to (non-drinking) community members and family may help reduce drinking or support abstinence.

	RECOMMENDATION	GRADE OF RECOMMENDATION
15.19	Patients' should be able to choose from available alcohol treatment services, whether that be mainstream, Indigenous-specific or a shared-care approach.	GPP
15.20	Consider the need to offer treatment to any drinking partner or close family member.	GPP

	RECOMMENDATION	GRADE OF RECOMMENDATION
15.21	Explore family, community, or cultural sources of strength and support that may help patients to change their drinking or maintain change. This includes men's groups and women's groups and alternative activities.	GPP

WITHDRAWAL MANAGEMENT

Ambulatory withdrawal management (e.g. 'home detox') offered through primary care services, can reduce barriers that Aboriginal or Torres Strait Islander peoples face in accessing withdrawal management. Patients need to be carefully selected given the high prevalence of medical or mental health comorbidity. If home environment is not suitable, another family member or friend may be able to provide a safer setting.

Individuals with complex medical, mental health or substance use histories, or repeated relapses are likely to require inpatient or residential treatment.

	RECOMMENDATION	GRADE OF RECOMMENDATION
15.22	Where it is medically safe to do so and appropriate, and when a safe and supportive environment is available, offer home withdrawal management for clients with less severe alcohol dependence.	D
15.23	Individuals with complex physical, mental health or social needs may require residential withdrawal management with or without residential rehabilitation.	GPP
15.24	There should be integration between various stages of treatment (e.g. withdrawal management, relapse prevention, ongoing care) with case management. This includes outreach or community case management as needed.	GPP

RELAPSE PREVENTION

Case management and continuity of care: Active follow-up support is important. Case management can strive to integrate treatment and support for medical, psychological and social/cultural needs.

Given the barriers to accessing specialised services, there is a need for seamless transition between services when a referral is made. This includes support for the transition between residential alcohol withdrawal management ('detox'), rehabilitation (when required), and aftercare.

Individual counselling or group approaches: Limited research has been conducted on one-on-one relapse prevention counselling in the management of alcohol use disorders in Aboriginal or Torres Strait Islander settings. Counselling approaches, such as Cognitive Behaviour Therapy (CBT), Dialectical Behavioural Therapy (DBT), Community Reinforcement Approach (CRA) and motivational interviewing, have been used among Aboriginal or Torres Strait Islander people with some adaptation.

Mainstream models of counselling often include only the clinician and patient. Some Aboriginal and Torres Strait Islander patients may prefer a family or community member to be involved.

Culturally-specific or culturally-informed approaches have been found to be beneficial (e.g. Strong Spirit Strong Mind program or cultural activities offered through ACCHSs or community). Aboriginal men's groups and women's groups have been observed to be helpful, and many clients perceive them as beneficial.

There is limited research on effectiveness of mutual support groups such as Alcoholics Anonymous (AA) or SMART among Aboriginal or Torres Strait Islander peoples. Some adaptations have been made to increase their acceptability, including making them more culturally appropriate, trauma-informed or linguistically inclusive. Peer support has been found helpful in other areas of Aboriginal and Torres Strait Islander health, but its role has not been formally evaluated in alcohol treatment.

Relapse prevention medicines: No research has been published on the effectiveness of alcohol pharmacotherapies among Aboriginal or Torres Strait Islander populations. Naltrexone, acamprosate (and less commonly, disulfiram) have been used and found acceptable by Aboriginal and Torres Strait Islander clients, including in ACCHS settings. Access to such pharmacotherapies appears to be poor, and there may be low awareness of these among potential prescribers and community. There have been suggestions that naltrexone would be a useful first-line medication for alcohol dependence due to its once-daily dosing, and potential to help those with episodic alcohol use to reduce the intensity of their drinking sessions. The ability to start it while a person is still drinking also offers potential.

Acamprosate on the other hand requires dosing three times a day, which may be hard to adhere to for a person with a complex life with many socio-cultural demands. However, its ability to reduce residual anxiety after withdrawal may be helpful in those with a burden of anxiety, for example related to past trauma. Acamprosate is contraindicated in renal failure.

Disulfiram is expensive to the patient, and so has limited accessibility. Also, in some patients' physical comorbidities may preclude its use.

	RECOMMENDATION	GRADE OF RECOMMENDATION
15.25	Aboriginal and Torres Strait Islander people with alcohol dependence should be offered the relapse prevention medicine which best meets their needs, considering physical and mental health comorbidities, patterns of drinking and complexities of their daily life.	GPP

	RECOMMENDATION	GRADE OF RECOMMENDATION
15.26	Given the likely low awareness of these medicines within Aboriginal and Torres Strait Islander communities, their role needs good explanation.	GPP
15.27	Where possible, offer Aboriginal and Torres Strait Islander patients a menu of choices: including both mainstream and Aboriginal-specific treatment and support.	GPP

RESIDENTIAL SERVICES

Aboriginal or Torres Strait Islander peoples can face many barriers to accessing residential rehabilitation services. The services may require access to a phone to arrange a bed, and may require payment of fees. Some mainstream services may not be culturally comfortable, or (for patients from remote areas) may not have staff who speak the patients language.

Many services exclude clients with significant mental or physical health comorbidities, or those who are on opioid treatment programs. There is a shortage of services that can take pregnant women, or women with babies or families.

Aboriginal or Torres Strait Islander drug and alcohol residential rehabilitation services can provide a broad range of treatment, including life skills, cultural education and counselling. Although these services vary by location, program length and services provided, fundamental to each is the integration of traditional values and Aboriginal or Torres Strait Islander concepts of health into the model of care.

	RECOMMENDATION	GRADE OF RECOMMENDATION
15.28	Services and clinicians need to strive to reduce barriers to accessing residential treatment services, such as the need to access a mobile phone or transport. This includes efforts to increase the number of family-friendly and youth services.	GPP
15.29	Residential treatment services should be resourced and staffed to allow them to accept individuals with comorbidities (mental health, physical health or other substance use disorders, including opiate maintenance treatment).	GPP
15.30	Residential treatment services should have closely linked or onsite withdrawal management services (outpatient or inpatient) to reduce gaps between withdrawal management and relapse prevention.	GPP

	RECOMMENDATION	GRADE OF RECOMMENDATION
15.31	Ensure culturally secure programs in residential treatment services.	GPP

COMORBIDITIES AND OTHER CONDITIONS

TRAUMA, GRIEF AND MENTAL HEALTH

Health professionals should be mindful of transgenerational trauma and grief, ongoing stress, and how alcohol use may be triggered by this, or may relieve or exacerbate symptoms. Trauma-informed (or healing-informed) care should focus not only on the individual but consider family, community and culture. Where needed, the clinician should seek cultural advice.

If a patient has recently ceased dependent alcohol use, stress can be heightened by the withdrawal. Supportive care may be the most appropriate in the short-term, with offer of specific counselling or treatment for trauma later, when the patient is more stable.

	RECOMMENDATION	GRADE OF RECOMMENDATION
15.32	The impact of past and/or present stress, grief, trauma or loss should be considered as a causative or perpetuating factor for unhealthy drinking and help, support or assistance offered for these where possible.	GPP
15.33	Outpatient or inpatient treatment should involve offer of care for mental health comorbidities where necessary. This should be done in a culturally secure way, and consider the person in context of family, community and culture.	GPP

PHYSICAL COMORBIDITIES

An alcohol use disorder can interfere with a person's ability to manage their other health conditions, such as diabetes. The clinician must also consider the impact of alcohol or alcohol withdrawal on physical comorbidities and offer treatment or advice accordingly. For example, consumption of alcohol on an empty stomach can cause hypoglycaemia in a person on diabetes medication, but chronic heavy use of alcohol can increase insulin resistance. Alcohol use also tends to be associated with increased smoking, which further increases risk of vascular disease.

	RECOMMENDATION	GRADE OF RECOMMENDATION
15.34	Consider the impact of drinking or of withdrawal on physical comorbidities, such as diabetes or heart disease, and advise clients on any likely interactions between these.	GPP
15.35	Treatment should include assistance with co-morbid nicotine dependence.	GPP

PREGNANCY OR BREASTFEEDING

For women of childbearing age, it is important to check awareness of the risk of alcohol to the unborn child. Contraception should be available to women who want to drink alcohol or who cannot stop drinking, to reduce the risk of FASD. For a pregnant woman who consents to have family involved in her care, informing partner or family members of her need to stay abstinent may allow them to support her. Women who are dependent on alcohol typically need access to residential treatment.

If a woman is breastfeeding it is important to check that she is aware of the risks of breastfeeding after drinking and of ways to minimise these risks.

	RECOMMENDATION	GRADE OF RECOMMENDATION
15.36	Provide or facilitate support for a pregnant Aboriginal or Torres Strait Islander woman who is drinking, and for her whole family where acceptable.	GPP
15.37	Provide education to women who plan to breastfeed on ways to reduce the risk of harms from alcohol to the baby.	GPP

CHAPTER 16

CULTURALLY AND LINGUISTICALLY DIVERSE GROUPS

Authors | Ken Curry, Yasmine Iese & Alison Laura Jaworski



CULTURALLY AND LINGUISTICALLY DIVERSE GROUPS

In Australia, one in three people are born overseas, and one in five households speak languages other than English. After English, the most common languages spoken at home are Mandarin, Arabic, Cantonese, Vietnamese, Italian and Greek. Culturally and Linguistically Diverse (CALD) group populations are typically less likely to drink alcohol compared to non-CALD populations. However, given the heterogeneity in CALD populations, some specific communities have reported drinking practices associated with higher risk to health; and there are concerns about individual, family, and community-level harms from alcohol consumption in various CALD communities.

Alcohol consumption levels in culturally diverse communities are influenced by a range of factors. Two models of explanation are: acculturation model and acculturative stress model.

- Acculturation typically refers to the process by which new migrants are exposed to and adopt the social, cultural, gender norms, and practices of the new society. This is evidenced by the tendency among some CALD community members to increase their alcohol consumption over time in the host country and is related to factors including education and host country language competence.
- Acculturative stress posits that alcohol is used as a mechanism to cope with the emotional impact of economic exclusion, social marginalisation, family-cultural conflict, and discrimination following resettlement. Ongoing impacts of exposure to pre-settlement trauma among refugee/refugee-like populations intersects with these in complex ways.

Thus, it is critical to consider the broader macro-structural factors, including economic, political and community conditions, that contribute to health disadvantages as an important component to reduce alcohol-related harms and health inequities.

TREATMENT ACCESSIBILITY

Alcohol and other drug treatment services in Australia report lower attendance by people born in overseas countries in the Australian population, and by people who speak languages other than English at home. CALD communities can experience significant barriers to accessing and engaging in Western treatment programs. Other than language difficulties, reasons include lack of cultural relevance and appropriateness of treatment programs, concerns about trustworthiness and inclusivity of mainstream services, fear of consequences of service involvement (e.g. problems with immigration) or confidentiality breaches. Greater understanding of cultural issues is needed in the development and delivery of treatment services in mainstream and specialist settings.

CULTURAL COMPETENCE IN TREATMENT AND SERVICE PROVISION

Whilst an understanding of race, ethnicity, and culture (including one's own) is necessary to appreciate the diversity of human dynamics and to treat patients effectively, consideration of culture is important at all levels of operation and in all stages of treatment and recovery.

Cultural competence is defined as “a set of behaviours, attitudes, and policies that enable people, organisations, and systems to work effectively in cross-cultural situations” (Cross et al, 1989). Incorporating cultural competence into treatment improves therapeutic decision-making and offers alternative ways to define and plan a treatment program firmly directed toward progress and recovery.

Achieving cultural competence requires the participation of racially and ethnically diverse groups and underserved populations in the development and implementation of treatment approaches and training activities. This can be supported through the establishment of interagency partnerships and protocols with CALD organisations. Organisational commitment, including the adequate allocation of resources, reinforces the importance of sustaining cultural competence in counsellors and other clinical staff.

	RECOMMENDATION	GRADE OF RECOMMENDATION
16.1	Clinicians should work in partnership with CALD health professionals and/or agencies to improve treatment access and appropriateness of care.	C

Differences between service environments (e.g. NGO and public systems) and the associated support required to foster culturally competent systems and processes requires further research.

CLINICAL ASSESSMENT AND ENGAGEMENT

Assessment of people with substance use problems is heavily dependent on the clinician's ability to establish effective communication and rapport across varying language and cultural systems. For CALD people who speak limited English and for clinicians seeking to engage with them, issues of language and culture may be a significant barrier to assessment and treatment. Teach-back or other appropriate techniques can be used to assess the need for language support.

RECOMMENDATION	GRADE OF RECOMMENDATION
16.2	For CALD people, document language spoken at home and where parents/ancestors are from. Enquire about the importance of a patient's cultural identity to them, without making assumptions. This approach is sometimes referred to as cultural humility.

A number of studies indicate CALD patients prefer bicultural and bilingual counselling, where available. Matching patient and therapist culturally in assessment and treatment may also create better outcomes. However, preferences for same-language clinician or interpreter options should be discussed with patients. At times patients may have concerns about confidentiality or experience embarrassment if a clinician is from the same cultural community, which may make open communication more difficult. The same issue may arise regarding interpreters, particularly where there is a relatively small community from a language group.

USING INTERPRETERS

If the best option is to use an interpreter for a clinical interaction, these are typically provided through the nation-wide Translating and Interpreting Service or relevant the state/territory government department see RACGP guidelines¹. Treatment providers should confirm with their management or funding body what is applicable for their service.

Working with interpreters is a skill and clinicians should seek further training to utilise interpreting services effectively. A few simple strategies are listed here, however additional techniques will need to be applied depending on patient circumstances (e.g. trauma history).

- Allow the patient choice about interpreter options (e.g. gender, or sub-community) where possible;
- Speak directly to the patient, rather than the interpreter;
- Allow space for briefing and debriefing the interpreter before and after the consultation;
- Use short sentences and minimise jargon wherever possible. Even commonly used terms such as 'counselling' may not have an equivalent term in some languages and explaining the processes involved may be more helpful.

Language resources, where available, can be particularly valuable to CALD people when used in conjunction with appropriate clinician support.

¹ <https://www.racgp.org.au/download/documents/AFP/2010/April/201004phillips.pdf>.

RECOMMENDATION		GRADE OF RECOMMENDATION
16.3	Use the Teach-back method or other appropriate techniques to assess the need for language support. Give the patient choice about interpreter options (e.g. gender) where possible. Provide bicultural and bilingual treatment/ counselling where possible, and preferred by the patient.	C
16.4	For challenging conversations about alcohol use, a professional interpreter is preferable to using an attending family member or carer.	C

INFORMATION IN COMMUNITY LANGUAGES	
Multicultural Health Communication Service	http://www.mhcs.health.nsw.gov.au/
Health Translations	http://healthtranslations.vic.gov.au/
Drug info@ your library	http://www.druginfo.sl.nsw.gov.au/languages/index.html
Your Room	https://yourroom.health.nsw.gov.au/resources/publications/pages/publications.aspx (use languages search tag)

RECOMMENDATION		GRADE OF RECOMMENDATION
16.5	Use suitable materials and resources both in terms of language and social demographics, such as age and gender.	B

SERVICE PROVISION, THE NEED FOR TARGETED SERVICES AND RESOURCES

In some circumstances, existing evidence-based interventions are either not effective at engaging a cultural group or enabling that group to achieve positive outcomes. Similarly, existing interventions may not adequately respond to unique risks or resilience factors, or unique symptoms in a particular community. Cultural adaptation, or the modification of standard evidence-based interventions to be culturally responsive and targeted to CALD community needs, may increase recruitment, retention, and treatment outcomes in some situations. In addition to language and worker ethnicity matching, adaptations also include

incorporating cultural health beliefs, cultural values (such as the importance of family) and health practices into treatment.

One comprehensive review of the literature on Screening, Brief Intervention and Referral to Treatment (SBIRT) in racial and ethnic subgroups in the United States found that special attention to validated screeners, appropriate use of language/literacy, trust building, and incorporation of patient and community health care preferences may enhance SBIRT acceptability and effectiveness in diverse populations. More recently, Newcombe and colleagues (2019) put forward the use of the Talanoa approach, a Pacific peoples-focused methodology of conversation and information exchange whilst administering the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) to allow for a more in-depth exploration of substance use among Pacific peoples. Further research eliciting specific effective cultural adaptations in an Australian context would improve CALD treatment provision.

	RECOMMENDATION	GRADE OF RECOMMENDATION
16.6	Be respectful and culturally sensitive in screening, assessment, treatment, and referral approaches. Where possible, integrate elements of cultural philosophy, practices, and communication styles into treatment.	B

Others have proposed the design of new cultural models of health interventions. The Drug and Alcohol Multicultural Education Centre's (DAMEC) culturally responsive model of service draws on shared communal understandings and experiences, recognises the influence of culture on individual and family identity, addresses impacts of inter-generational change, acculturation, and discrimination in treatment provision. Another method, the Fonofale model (Pulotu-Endemann), outlines a holistic approach that can be applied with Pacific communities in a health context and incorporates (amongst others) familial, spiritual, and cultural elements.

	RECOMMENDATION	GRADE OF RECOMMENDATION
16.7	Utilise cultural and family support systems as desired by patients.	C

CONCLUSION

Despite barriers to CALD communities receiving help for alcohol problems there is good evidence of the efficacy in treatment in people from CALD backgrounds. This can be enhanced by clinicians practicing with respect and cultural sensitivity. Clinicians need to recognize the importance of the variation within cultural communities and work through options with patients and seek to incorporate cultural strengths. Cultural competence for clinicians needs to be recognized as an important aspect of alcohol service provision and services need to utilize bicultural workers and organizations.

CHAPTER 17

SEXUALITY AND GENDER DIVERSE POPULATIONS

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This chapter reviews the risk factors and treatment options for sexuality and gender diverse populations.



SEXUALITY AND GENDER DIVERSE POPULATIONS

Sexuality is a person's sense of themselves as a sexual person and usually reflects their sexual attraction and sexual practice. Heterosexual people are sexually attracted to people of the opposite gender, lesbian women are sexually attracted to other women, gay men are sexually attracted to other men, bisexual people are sexually attracted to people of any gender, and queer people are sexually attracted to people of all genders (queer is also an umbrella term for sexuality and gender diverse people). Evidence from three nationally representative surveys suggests 3.2% of Australian adults report a non-heterosexual identity .

Gender identity means the sense a person has of having a particular gender. Cisgender people identify with the sex they were assigned at birth, transgender people's gender does not align with the sex they were assigned at birth. Most transgender people identify as either woman/female or man/male, however people who feel their gender does not align with either female or male, or exclusively with male or female, use the terms non-binary or gender fluid. There is no reliable evidence on the proportion of gender diverse people in Australia; a systematic review of US population-based surveys provided a population estimate of 0.5%.

Establishing an evidence base for patterns of alcohol use and treatment outcomes among sexuality and gender diverse people is challenging. Sexuality and/or gender identity are rarely captured in large surveys and treatment studies, and markers are not included in the Alcohol and Other Drug Treatment Services National Minimum Data Set for all government funded alcohol and other drug treatment specialist services.

	RECOMMENDATION	GRADE OF RECOMMENDATION
17.1	Standardised sexuality and gender identity markers should be included in the Alcohol and Other Drug Treatment Services National Minimum Data Set and in epidemiological, clinical and treatment studies.	GPP

PATTERNS OF ALCOHOL USE

Consistent international evidence shows lesbian, gay, or bisexual (LGB) people report greater alcohol use and problematic drinking at higher rates than heterosexual people. LB women's alcohol use is consistently higher, with more problematic use or dependence, than their heterosexual peers; differences between GB and heterosexual men are rarely reported. A non-

exclusive sexuality (e.g. bisexual or ‘mostly’ heterosexual or gay) appears to be associated with higher alcohol use or problematic drinking compared to an exclusive sexuality (e.g. heterosexual, lesbian, gay).

Sexuality diverse young people consistently show a greater risk of alcohol use and an earlier onset of problematic alcohol use, with a similar pattern of greater disparities for young LB women. Alcohol use does not decline with older age in the same way as is seen in the general population. The limited evidence on alcohol use and problematic drinking among gender diverse populations has mixed findings and is beset by methodological issues; representative studies show no significant differences between gender diverse and cisgender people.

	RECOMMENDATION	GRADE OF RECOMMENDATION
17.2	Given reported variations in problematic alcohol use between gay/lesbian and bisexual people, clinicians should be aware of diversity across sexuality sub-groups.	C
17.3	Due to deviations from normative gendered patterns of drinking, clinicians should be especially conscious of screening and early interventions for sexuality diverse women.	B
17.4	Due to deviations from normative age-related patterns of drinking, clinicians should be especially conscious of screening and early interventions for sexuality diverse people across the life course.	B

DRIVERS OF PROBLEMATIC ALCOHOL USE

Sexuality and gender diverse people use alcohol for many of the same reasons as heterosexual and cisgender people. Two further explanations are extended in the literature.

ALCOHOL USE AS A STRESS RESPONSE TO EXPERIENCES OF DISCRIMINATION AND REJECTION

Sexuality and gender diverse people may experience stigma, discrimination, rejection, and physical abuse from a range of sources including family, friends, and strangers (see [Chapter 3](#)). Over one-quarter of LGB people and up to half of gender diverse people report verbal harassment or abuse in the preceding year, with many changing their behaviour or hiding their sexuality and/or gender with family, in public, and when accessing services. Removal of criminalisation and legally enshrined discrimination against sexuality and gender diverse people is relatively recent in Australia, with some institutionalised discrimination remaining. Many sexuality and gender diverse people have a cultural background where sexuality or gender diversity is criminalised; consensual same-sex activity between adults is punishable by death in 11 countries. There is

mixed evidence of a positive association between stress related to being a sexual or gender minority and substance use.

NORMATIVE INFLUENCES OF ALCOHOL-BASED SOCIALISING

Sexuality and gender diverse communities have historically organised around licensed venues for safety, to meet like-minded people, and to express their identities. It is theorised that this alcohol-based socialising has normalised alcohol (and illicit substance use). Sexuality and gender diverse people perceive a heavy drinking culture to be normal; more frequent bar attendance is associated with overestimating heavy alcohol use among peers and with increased alcohol use.

	RECOMMENDATION	GRADE OF RECOMMENDATION
17.5	In assessment, treatment and aftercare, clinicians should consider a patient's experience of managing a stigmatised identity.	C
17.6	In assessment, treatment and aftercare, clinicians should consider the potential impact of a patient's engagement with sexuality and gender diverse community and exposure to community-specific drinking norms.	C

TREATMENT ACCESS AND EXPERIENCE

Sexuality diverse people access treatment for alcohol use at higher rates than heterosexual people. In Australia, GB men have twice the odds and LB women three times the odds of having ever attended substance use treatment compared to heterosexual people. There is no evidence on gender diverse people's treatment seeking. Sexuality and gender diverse people entering substance use treatment are more likely to have mental health comorbidity and/or accessed mental health treatment.

IDENTITY DISCLOSURE

A central concern in the literature is that an inability to be honest and open about sexuality or gender will leave patients unable to undertake the therapeutic work necessary to address the issues that contributed to the onset of their alcohol problems, maintenance of those problems and the risk of relapse. There is evidence of lower levels of satisfaction and connection with treatment, with LGB people feeling vulnerable, unsafe, isolated, alienated, or misunderstood. Gender diverse people report much lower levels of feeling supported, ability to be honest and open, satisfaction, program completion and abstinence. Levels of openness with staff has been positively associated with feeling therapeutically supported and connected to treatment, and with program completion, and negatively associated with leaving treatment or being discharged; there was no association with abstinence.

Disclosure of sexuality or gender identity is a personal risk, with many patients having direct experience of discrimination in healthcare or vicariously experienced discrimination through the accounts of others. Disclosure decisions by patients are often made on a practitioner by practitioner, consultation by consultation basis. Health care providers tend not to ask about sexuality believing it is the patient’s responsibility to disclose. Health care providers who are uncomfortable with or actively hostile towards sexuality or gender diverse patients may fail to acquire clinically important information about the potential impact of stress and distress related to having a minority identity, the patient’s support and social network and the role of alcohol in their social networks¹. Health care providers report they are not receiving education or training on providing care for sexuality and gender diverse patients.

	RECOMMENDATION	GRADE OF RECOMMENDATION
17.7	Clinicians require training in the health and health care needs of sexuality and gender diverse people.	GPP
17.8	Alcohol use treatment services need to create an environment where questions about sexuality and gender identity are normalised, so patients feel disclosure is a valued part of their treatment and care.	GPP
17.9	Alcohol use treatment services and clinicians should be aware sex-segregated access may be restricted and/or uncomfortable for gender diverse patients; services should clarify access criteria.	GPP
17.10	Clinicians need to facilitate openness and a sense of connection in order to explore clinically important psychosocial factors with sexuality and gender diverse patients.	GPP

TREATMENT EFFECTIVENESS

While the evidence on treatment outcomes for sexuality and gender diverse people in generalist programs suggested lower levels of abstinence, it is limited and dated. Specialised treatment programs for sexuality and gender diverse people seek to provide supportive and safe therapeutic environments to address the coming out process and how this contributes to substance use, and develop alternative ways to socialise without centring on alcohol. There is little evidence on the efficacy of these programs compared to treatment as usual; one US-study found specialised treatment “virtually eliminated any differences in current abstinence rates between heterosexual and gay/bisexual [male] participants”. The few specialised substance treatment services in Australia are provided by community-based organisations (e.g. ACON in NSW and Thorne Harbour Health in Victoria), and have not been evaluated.

¹ <https://store.samhsa.gov/system/files/sma12-4104.pdf>

A growing evidence base on the efficacy of specific treatment modalities for sexuality and gender diverse people shows increased efficacy of motivational interviewing/goal choice in reducing alcohol use for men who have sex with men and for transgender women, and some evidence that individuals receiving behavioural couples' therapy increased their days of drinking at a significantly slower rate than those receiving individual behavioural therapy. Concerns about the efficacy of mixed-group treatment due to potential homophobia or transphobia from other patients, or of family counselling where there is alienation due to sexuality or gender, have not been systematically explored.

Despite concerns there is no research examining how sexuality or gender identity is addressed in relapse prevention, recovery, and aftercare. Sexuality and gender diverse people may anticipate and/or face challenges re-connecting with LGBT communities, seeking and maintaining social support, friendships and romantic partners in social, community and commercial spaces that are not organised around alcohol. They may also anticipate and/or experience stigma and discrimination in generalist recovery programs such as Alcoholics Anonymous, although there is little research on experiences or outcomes.

	RECOMMENDATION	GRADE OF RECOMMENDATION
17.11	A growing evidence base suggests motivational interviewing and goal setting are effective for addressing problematic alcohol use among men who have sex with men and among transgender women.	C
17.12	In the absence of specific evidence, usual best practice approaches should be used to address problematic alcohol use amongst LB women, transgender men, and non-binary people; more research is needed.	C
17.13	Treatment studies need to include standardized sexuality and gender markers and report on outcomes by gender and by sexuality.	GPP
17.14	Despite calls for specialised culturally-tailored treatment, there is limited evidence of its efficacy over generalist treatment; more research is needed.	GPP
17.15	For relapse prevention, recovery and aftercare, clinicians should consider patients' access to social support, the social organisation of sexuality and gender diverse communities and referral to LGBT-specific aftercare.	GPP

IMPROVING TREATMENT CONNECTION, SATISFACTION, AND EFFECTIVENESS

Most sexuality and gender diverse people will be treated in a generalist service and have a right to effective treatment in a safe and supportive environment. Recommendations for culturally competent and inclusive practice centre on the affirmation and celebration, rather than tolerance and acceptance, of sexuality and gender diverse people². Specific strategies for achieving this include:

- On intake forms, assessments and intervention support materials using the terminology sexuality and gender diverse people use to describe themselves
- Displaying visible markers of inclusion in patient areas and engaging in community events
- Identifying and promoting safe referral options for recovery and aftercare
- Understanding patients' confidentiality concerns and being transparent and flexible around the collection and sharing of sexuality and/or gender identity
- Comprehensive policies and training and supervision for all staff on inclusive practice
- Seeking formal accreditation of LGBTI-inclusive practice and service delivery
- Presence of sexuality and gender diverse staff
- Links to local sexuality and gender diverse communities and organisations
- Clinicians developing knowledge of multiple and intersectional oppressions patients face and how social factors may contribute to alcohol use, and present a risk for relapse
- Clinicians recognising complex relationships with families of origin and the importance and relevance of non-biological kinship bonds for treatment and recovery and relapse prevention

	RECOMMENDATION	GRADE OF RECOMMENDATION
17.16	Treatment services need research evidence on specific clinician- and service-level interventions to enhance cultural competence and inclusiveness for sexuality and gender diverse people in treatment.	GPP
17.17	Clinicians and treatment services should use reflection, action, and meaningful engagement with sexuality and gender diverse communities to ensure health care is culturally competent and inclusive.	GPP

² https://www.acon.org.au/wp-content/uploads/2019/02/AOD-Inclusive-Practice-Guidelines-for-Treatment-Providers_A4_v11.pdf

CHAPTER 18 **OLDER PEOPLE**

Authors | Apo Demirkol & Brian Draper



OLDER PEOPLE

There is no universally accepted definition of old age. The term older-person in Australia has generally been used to refer to anyone aged 65 years and older with some exceptions, notably Aboriginal and Torres Strait Islander Australians (see [Chapter 15](#)) and persons attending substance use disorder services, where 'older person' is often defined as aged 50 years and over (Australian Institute of Health and Welfare, 2018; NSW Ministry of Health, 2015).

In 2017 approximately 3.8 million Australians (15% of Australia's total population) were aged 65 years and over, and over the next 50 years the number of older people in Australia is expected to increase to between 8.6 million and 10.2 million, representing 21-23% of the total population (Australian Bureau of Statistics 2018).

Data from the 2016 National Drug Strategy Household Survey (Australian Institute of Health and Welfare 2017), of Australians aged 60 years and older indicate that:

- 10.2% of 60-69 year olds and 13.6% of those aged 70 years and over drank alcohol on a daily basis and 39.7% of 60-69 year olds and 30.4% of those aged 70 years and over drank alcohol on a weekly basis;
- People in their 60s were the age group most likely to consume 5 or more standard drinks on at least 5 days per week (7% in 2016), while people aged 70 years and over were the least likely to consume alcohol in risky quantities, with only 11% consuming 5 or more drinks on a single occasion in the past year;
- The proportion of people in their 50s (9.1% to 11.9%) and their 60s (4.7% to 6.1%) consuming 11 or more standard drinks on a single drinking occasion in the past 12 months significantly increased between 2013 and 2016.

These data are reflected in the near doubling of the number of people aged 50-64 years receiving care in NSW drug and alcohol services over the decade 2004-5 to 2013-14 (NSW Ministry of Health, 2015). The current generation of older people experienced a more liberal social culture toward drinking during their lifetime, which may have contributed to this increase. While the rate of risky drinking declines with age, in health care settings older people are more likely to report alcohol related problems.

PATTERNS OF DRINKING AMONG OLDER PEOPLE

Three patterns of late life alcohol misuse have been described:

- *Survivors (early onset users)*: often develop alcohol use disorder (AUD) in their 20s, and prematurely age as they do not use preventative services and may require aged care related services in their 50s.

- *Maintainers*: their long term alcohol misuse only starts to manifest itself as an overt problem as age-related changes occur and previously well-tolerated, albeit excessive, consumption of alcohol is no longer tolerated or results in harm.
- *Reactors (late onset users)*: tend to develop alcohol use disorders after the age of 50 and this may occur in association with issues such as declining health, chronic pain, stress, insomnia, bereavement, unemployment, depression, social isolation and boredom.

AGE-RELATED CHANGES PHYSIOLOGICAL CHANGES AND ALCOHOL – IMPLICATIONS FOR LOWER RISK DRINKING

Age-related physiological changes result in older adults having a lower tolerance for alcohol than younger adults. Older adults tend to have higher blood alcohol levels than younger adults after consuming the same amount of alcohol. Factors that contribute to this include an increased body fat ratio, slower alcohol metabolism due to decreased levels of the alcohol dehydrogenase enzyme, and a decrease in total body water with age. Thus, older adults have a higher sensitivity to alcohol and a decreased ability to metabolise it effectively.

ARE THERE BENEFITS OF LIGHT TO MODERATE ALCOHOL USE IN OLDER ADULTS?

Despite numerous studies that purport to show benefits of light to moderate alcohol consumption (one to two drinks per day) on a range of health outcomes, the latest research indicates that the perceived health benefits may be attributable to methodological issues such as poor selection of comparison groups, systematic error of misclassification, and in fact there are no net physical health benefits of alcohol consumption in older adults.

HEALTH RISKS AND COMORBIDITIES OF ALCOHOL USE IN OLDER ADULTS

Older adults require special consideration due to a combination of their lower tolerance of alcohol from age-related physiological changes, the impact of long term alcohol use on health, the increased risk of coincidental health comorbidities and medication use with age, and the impact that these factors have upon their independent functioning and social interactions.

PHYSICAL HEALTH:

- Numerous physical health complications of alcohol misuse have been well-described including alcohol-related liver disease, cardiac disorders, gastrointestinal disorders, and neurological disorders.
- Older adults who consume alcohol are more likely to have injurious falls, and die in motor vehicle accidents than those who do not drink.

- In some cases, existing chronic conditions such as chronic pain may lead to an increase in alcohol consumption.
- Older adults with long term alcohol use are at increased risk of developing various cancers.
- The high rates of physical comorbidity in older people is associated with increased use of prescription drugs many of which have known interactions with alcohol with some being contraindicated see [Chapter 20](#)).

MENTAL HEALTH:

- Depression is associated with alcohol use.
- Alcohol misuse is associated with suicidal behaviour in older adults although the risk declines with age.
- Other mental health impacts of late life alcohol misuse include anxiety disorders, post-traumatic stress disorder, antisocial personality disorders, global psychological distress and increased length of stay of mental health admissions.

PSYCHOTROPIC AND ILLICIT DRUG USE:

- Older adults with alcohol use disorders are frequently prescribed sedative-hypnotic, anxiolytic and antidepressant drugs and are more likely to use illicit drugs see [Chapter 20](#))

COGNITIVE IMPAIRMENT:

- Light to moderate alcohol consumption in mid to late life does not appear to increase the risk of developing dementia nor is a protective factor for dementia.
- In contrast heavy alcohol consumption in mid to late life is associated with cognitive decline and increased risk of developing primary dementia and alcohol-related brain damage.
- In some cases heavy alcohol use can develop in the context of primary dementia in older adults with no history of AUD, as they forget how much they have had to drink.
- Heavy alcohol consumption in people with primary dementia is associated with increased hospital admissions for falls, head injuries and behavioural concerns.

SCREENING FOR ALCOHOL USE DISORDERS

The CAGE and the Alcohol Use Disorders Identification Test (AUDIT), are the most frequently used tools for screening alcohol dependence and hazardous use in the general population, and are validated for older populations as well. Lowering the cut off points for AUDIT to ≥ 5 ; and for AUDIT-C (Alcohol Use Disorders Identification Test- Consumption) to ≥ 4 has been recommended in order to improve their sensitivity in older people.

Regardless of the health care setting, a screening for harmful alcohol use should be undertaken for all new patients over 50 years old and reviewed at regular intervals, that is, at least once a year with a view to document for use and misuse.

For older adults who present with unexplained physical and psychological symptomatology and inconsistencies or contradictions in the presentation, as well as the major life events, should

prompt re-screening for, or assessment of alcohol and other substance use.

People who are older and drink that are taking other medications, in particular those taking multiple medications or psychoactive medications (e.g. sedatives, anti-depressants), should have medications reviewed by their medical practitioner to assess for any drug interactions.

Due to alcohol's impact on overall well-being, a comprehensive assessment should include physical, mental and cognitive capacity, nutrition, chronic pain, social conditions, overall general functioning, and a review of medications.

The severity and management of concomitant physical and mental conditions should be reviewed several weeks to months after cessation of drinking and completion of withdrawal. Abstinence can be associated with marked improvements in other conditions (such as hypertension, cognitive function, mental state). Alternatively, alcohol use may have been masking underlying illness.

	RECOMMENDATION	GRADE OF RECOMMENDATION
18.1	Regardless of the health care setting, screening for harmful alcohol use should be undertaken for all new patients over 50 years old and reviewed at regular intervals at least once a year with a view to document for use and misuse and associated complications.	D
18.2	For older adults who present with unexplained physical and psychological symptomatology and inconsistencies or contradictions in the presentation, as well as the major life events, should prompt re-screening for, or assessment of alcohol and other substance use.	D
18.3	Concurrent physical or mental illness, medications, social conditions and functional limitations need to be considered when assessing people who are older.	D
18.4	Reassess any concomitant physical and mental conditions several weeks to months after cessation of drinking. Abstinence can be associated with marked improvements; conversely, alcohol use may have been masking underlying illness.	D

DIAGNOSING ALCOHOL USER DISORDERS IN OLDER PEOPLE

The International Classification of Diseases-10th Edition (ICD-10) and the Diagnostic and Statistical Manual of Mental Disorders-5 (DSM-V) are currently used to diagnose alcohol use disorders. Both of these diagnostic systems are developed in and for younger adults and some aspects of the criteria may not appropriately apply to older people. In diagnosing older patients with AUD, a multidisciplinary team that includes an addiction specialist and an old age psychiatrist/geriatrician may help in negotiating the intricacies of some of these incompatibilities in these diagnostic systems.

WHAT IS EFFECTIVE IN THE MANAGEMENT OF AUD IN OLDER ADULTS?

Older adults benefit from treatment, and in some cases, tend to have better outcomes than younger people. Older adults may respond well to brief interventions (see [Chapter 6](#)), motivational interviewing and enhancement approaches as well as personalized feedback from their treating doctors. Drinking diaries, psychoeducation and follow-up letters or phone calls specifically addressing alcohol intake are effective tools in reducing the amount or the frequency of alcohol consumption.

	RECOMMENDATION	GRADE OF RECOMMENDATION
18.5	Brief interventions should be employed for older people drinking at risky levels or experiencing alcohol-related harms (such as falls, driving impairment, drug interactions).	A

WITHDRAWAL MANAGEMENT FOR PEOPLE WITH ALCOHOL DEPENDENCE

Comorbid physical illness and associated infirmities among older people increase the risk of a complicated alcohol withdrawal experience (see [Chapter 8](#)), and as a result it is important to carefully assess and closely monitor older patients who are at risk of developing alcohol withdrawal complications, ideally in an inpatient setting.

Appropriate management of the nutritional status as well as the optimal management of comorbid physical and mental health problems will likely to ensure a shorter admission and reduce the risk of major alcohol withdrawal complications such as delirium tremens.

Lorazepam and oxazepam clearance are minimally affected by age, hence these two medications are recommended for the management of alcohol withdrawal symptoms. Older people are likely to require lower doses of benzodiazepines for the management of their withdrawal symptoms and as a result a symptom triggered approach is recommended for this group.

Thiamine deficiency is common among people with severe alcohol use disorders. There is good empirical evidence to support the use of thiamine intravenously (at least 500 mgs, two or three times a day) during the admission for alcohol withdrawal management.

	RECOMMENDATION	GRADE OF RECOMMENDATION
18.6	Withdrawal management of people who are older with alcohol dependence requires close monitoring, nutritional supplements especially IV thiamine, careful use of sedative medication, and management of comorbid conditions.	GPP
18.7	Caution should be exercised when prescribing medications to people who are older that drink. Short-acting benzodiazepines (such as oxazepam, lorazepam) are preferred for alcohol withdrawal management over long-acting benzodiazepines (such as diazepam).	D

RELAPSE PREVENTION

The use of pharmacotherapies in relapse prevention for in older adults is an area for further research (see [Chapter 10](#)). There is some evidence for the efficacy of Naltrexone use in older people with AUD. As older patients tend to be on a variety of medications, a careful consideration needs to be given in order to avoid the complications related to polypharmacy prior to commencement of any additional medication.

	RECOMMENDATION	GRADE OF RECOMMENDATION
18.8	Psychological and pharmacological treatment approaches should be tailored to physical, cognitive and mental health of older patients with a special attention to complications of polypharmacy.	D

CHAPTER 19 **COGNITIVE IMPAIRMENT**

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This chapter provides an overview of treatment options and approaches for patients with cognitive impairment.



COGNITIVE IMPAIRMENT

PEOPLE WITH COGNITIVE IMPAIRMENT

The prevalence of cognitive impairment (CI) in people seeking treatment for alcohol use disorder (AUD) is high (up to two thirds with some form of impairment). Impaired cognitive functioning is related to poorer treatment retention and increased risk of relapse. Early assessment and ongoing monitoring of cognitive status is therefore essential for appropriate treatment planning and to maximise likelihood of treatment success.

SCREENING, ASSESSMENT AND TREATMENT PLANNING

A review of cognitive functioning should form part of assessment on treatment entry. This includes initial screening and management of acute causes of cognitive impairment (Wernicke's encephalopathy, alcohol withdrawal delirium; see [Chapter 22](#)). If chronic and/or significant CI is suspected after management of these acute conditions, then a more thorough assessment by an appropriately qualified professional is indicated. This stepped mode of assessment is best practice for an environment marked by high rates of CI, limited staff time (particularly staff with specialist training in cognitive assessment, such as neuropsychologists), and limited health service budgets.

Use of a standardised cognitive screening tool (such as the Montreal Cognitive Assessment; see [Box 19.1](#) for an overview of cognitive screening tools) should be integral to any patient screening. Considering the myriad potential causes of cognitive impairment in people with AUD, assessment of current cognitive status should include history-taking of other risk factors for cognitive impairment (e.g. head injury, mental health conditions) in addition to physical health status. Evaluation of developmental and educational history (e.g. learning or intellectual disabilities, limited education) should be included; cognitive impairment may be incorrectly diagnosed if premorbid level of ability (e.g. literacy) is not taken into account. Clinicians should be particularly vigilant for those at high risk of demonstrating cognitive impairment - older (aged 50+) patients with a history of long-term heavy alcohol use and/or those with central nervous system (CNS) pathology such as head injury or epilepsy.

The most widely used cognitive screening tool, the Mini-Mental State Examination (MMSE), while well validated for use in screening of early dementia, has limited sensitivity in detection of alcohol-related CI. The MMSE is copyright protected. The Montreal Cognitive Assessment (MoCA) is currently the most well-validated tool for use with individuals with AUD (See [Box 19.1](#)). Where possible, formal cognitive assessment should be deferred until the patient has achieved several weeks of abstinence to identify the highest level of performance. However, early cognitive screen and/or assessment is preferable to none at all and may be more robust with

respect to establishing likely ongoing day-to-day impairments. A more comprehensive assessment of cognitive functioning (e.g. neuropsychological assessment) is recommended where cognitive impairment persists following extended abstinence (e.g. one to two months), and particularly when there are concerns about the impact of the CI on functioning (e.g. ability to return to work). The results of the assessment can inform appropriate AUD treatment and other interventions as required (e.g. need for guardianship, aged care or disability service involvement). Following full neuropsychological assessment, the clinician should discuss the results with the patient and their supporting networks and provide written material for patients in an easily understood format. It is important to include treating clinicians and support networks in this discussion as the patient themselves may lack the ability to retain knowledge of, or enact, recommendations.

Cognitive impairment can affect motivation, attention span, the capacity to critically evaluate situations and the ability to acquire new skills, but they can (indeed often do) improve after a period of abstinence from alcohol. Therefore, clinicians should take into account the possibility of improvement in cognitive functioning by allowing a sufficient period of abstinence from alcohol to elapse before finalising treatment planning. Establishing a routine may, however, mask cognitive impairment and if the routine is interrupted, the full extent of the impairment may manifest.

	RECOMMENDATION	GRADE OF RECOMMENDATION
19.1	All patients should be screened for cognitive impairment on treatment entry. If cognitive impairment is suspected, comprehensive assessment should be conducted that includes medical review (including nutritional deficiencies, physical and psychiatric comorbidities), review of other risk factors for cognitive impairment (e.g. past head injury), and cognitive screening with a standardised tool (e.g. Montreal Cognitive Assessment). Neuropsychological assessment may be beneficial if cognitive impairment persists post an initial stabilisation period.	A
19.2	Periodic re-evaluation of cognition (e.g. annually) in continuing patients is advised as impairment levels can fluctuate. Patients should be screened earlier if there are any inconsistencies in presentation or when people are not meeting their treatment goals/requirements. Using the same measure as at baseline is advised to be able to detect any changes in results.	B

RECOMMENDATION	GRADE OF RECOMMENDATION
19.3	<p>The possibility of improvement in cognitive functioning should be considered by allowing a sufficient period of abstinence (or substantial reduction of alcohol intake) to elapse before finalising treatment planning; the treatment plan should also address nutritional improvements and treatable co-existing medical conditions. Treatment planning should be undertaken in collaboration with the patient, as well as relevant supports (i.e., family and friends), and relevant health professionals (i.e., GPs, addiction medicine specialists).</p>

BOX 19.1: Cognitive screening tools

COGNITIVE SCREENING TOOL
THE MONTREAL COGNITIVE ASSESSMENT (MOCA)

TIME TO ADMINISTER
15 - 20 MINS

ADVANTAGES

- Good reported sensitivity and specificity for CI in AUD populations
- Assesses visuospatial/executive function, naming, attention, memory, language, abstraction, orientation
- Alternate forms to limit practice effects with repeat administration
- Paper or app formats
- Multiple language versions
- Freely available for non-commercial use
- Can be administered by any healthcare professional who has appropriate training, with interpretation limited to a health professional with expertise in the cognitive field
- Normative data sets available, including for adults aged 18 years and older

DISADVANTAGES

- From September 2020, official training and certification in administration and scoring of the MoCA will be mandatory to access the test (exempt for students, residents, fellows and neuropsychologists). This currently costs \$125 USD per person (discounts for groups offered)
- May not detect mild CI or CI in highly-educated individuals

COGNITIVE SCREENING TOOL

THE ADDENBROOKE'S COGNITIVE EXAMINATION-III (ACE-III)

TIME TO ADMINISTER

20 - 30 MINS

ADVANTAGES

- The previous version (ACE-R), which has similar psychometric properties, has acceptable sensitivity/specificity in substance use disorder
- Assesses attention, memory, fluency, language and visuospatial function
- More detailed assessment of language and praxis functions than the MoCA; may be more suitable for clinical settings where comorbid substance use and neurodegenerative disorders are suspected
- Alternate forms available to limit practice effects
- Paper or app formats
- Multiple language versions
- Freely available for clinical practice and research
- No mandatory qualification or training requirements

DISADVANTAGES

- Requires further validation in AUD treatment groups
- Longer administration time than the MoCA
- Normative data lacking for younger (age <50) populations

COGNITIVE SCREENING TOOL

THE REPEATABLE BATTERY FOR THE ASSESSMENT OF NEUROPSYCHOLOGICAL STATUS (R-BANS)

TIME TO ADMINISTER

20 - 30 MINS

ADVANTAGES

- Is able to detect CI in individuals with AUD
- Assesses immediate and delayed memory, visuospatial/constructional ability, language, attention
- More detailed assessment of learning and memory skills than MoCA/ACE-III
- Alternate forms available to facilitate repeated administration
- Comprehensive normative data set

DISADVANTAGES

- Longer administration time than the MoCA or ACE-III
- Does not assess executive function – this needs additional testing
- Requires specific user qualifications (allied health or psychologist)
- Costs \$594 AUD for basic test kit

TREATMENT OPTIONS

Where severe cognitive impairment is present:

- Abstinence (or substantial reduction in alcohol intake) should be encouraged.
- Nutritional support should be considered including extended use of thiamine supplementation.
- Treatment should be provided in a structured and routine manner that limits need for complex decision-making skills (e.g. consider need for inpatient treatment).
- Treatment elements that require significant cognitive processing should be reconsidered as they may be ineffective.
- Information presented to patients should be adapted according to the type of impairment they have (e.g., concrete and provided in more than one modality, that is, written and spoken).
- Patients should be given opportunities to practice behaviours taught, in various settings, with and without prompting.
- Treatment interventions may focus more on linking the individual with enhanced external supports (e.g. community activities, National Disability Insurance Scheme) or assisting with protective interventions (e.g. guardianship) rather than on strengthening the individual's personal motivation to change.

Although clinicians have for some time recognised that many people with AUD also have CI, little evidence has been produced about which treatments are most effective. Nevertheless, level of cognitive functioning should be used to guide treatment planning. Even subtle cognitive deficits could affect treatment effectiveness in a number of ways.

People with AUD may have little insight into the nature and extent of their cognitive deficits. Due to concrete and rigid thought processes that can occur secondary to AUD-induced cognitive impairment, patients with CI may have difficulty processing all of the relevant information about their problem, and may be inflexible about changing their behaviour. They also may be impulsive and have difficulty generating new ways of solving problems when they arise. Clinicians must be aware therefore that this inflexibility results from an inability to understand the need to change, or from difficulties shifting existing ways of behaviour, rather than denial of a problem or refusal to change behaviour. In these situations, particularly where cognitive deficits are temporary, clinicians should try different treatment approaches (see below) to engage the person in treatment.

ENGAGING THE PATIENT WITH COGNITIVE IMPAIRMENT IN TREATMENT

While many of the strategies discussed in this section apply to all patients, they may be particularly important for engaging patients with CI. The following strategies may increase the patient's engagement in treatment:

- **Provide written information to the patient about treatment and talk them through the process** – the patient may be more likely to enter treatment if they understand what treatment will involve, the process of treatment, and what they will be required to do.
- **Keep in mind that the discussion of different treatment options with the patient may need to be presented in a way that accounts for their type of CI** (e.g., assisting the patient to write down options if learning is impaired). Where the clinician judges that the patient is capable of making a decision, the patient should be involved in deciding which treatment to participate in.
- **Establish a positive relationship with the patient with CI by:**
 - keeping information as simple and structured as needed
 - adopting an empathetic, non-judgmental, non-authoritarian approach
 - listening carefully to what the patient has to say
 - scheduling sufficient time for consultations
- **Maintain contact with patients with cognitive deficits.** To increase the likelihood that patients will attend appointments, clinicians should:
 - telephone and/or send a text message before a consultation to remind the patient they have an appointment
 - schedule the appointment at the same time on the same day to decrease the likelihood of forgetting
 - encourage support networks to accompany the patient if appropriate
 - follow-up by telephone if an appointment has been forgotten and arrange an alternative time
 - arrange for referral to aftercare before completing treatment to ensure there is no gap in continuing care. It is often this gap that leads to relapse.

Cognitive deficits can also affect treatment by limiting the patient’s ability to effectively express their thoughts and feelings and to understand communication from the clinician. The clinician should keep all communication as simple as possible, and repeat information several times if necessary. They should use multi-modal presentation of material where possible (e.g. verbally, visually, experientially/‘doing’). The clinician can regularly check that the patient understands what they are saying by asking them to summarise in their own words, rather than merely asking them if they understand. Patients with memory problems should be encouraged to record their thoughts and questions in a diary and be directed to refer to their notes as a way to ensure the memory problem does not affect potential treatment outcomes. Treatment planning should also be undertaken in collaboration with the patient, as well as relevant supports (i.e., family and friends), and relevant health professionals (e.g. GP, addiction medicine specialist).

MANAGING A PATIENT WITH ALCOHOL-RELATED COGNITIVE IMPAIRMENT

If cognitive impairment is present, determine if it is acute (delirium) or chronic or acute on chronic (that is, acute exacerbation of a chronic condition).

Where the patient appears to be in an acute confused state:

- Hospitalise where appropriate.
- Consider Wernicke's encephalopathy. Treat urgently with parenteral thiamine (see [Chapter 22](#)).
- Rule out and treat other causes of confusion, such as sepsis, dehydration, metabolic disturbances, subdural haematoma, post-ictal confusion, substance intoxication, ischaemia/infarction, hepatic encephalopathy. Carry out appropriate investigations: urinalysis, blood alcohol concentration, blood tests, x-rays, EEG, CT or MRI.
- Orientate the patient with familiar staff and relatives, use of calendars and clocks, bright lights at night.
- Use benzodiazepines with or without antipsychotic medication for acute behavioural disturbance; however, keep in mind that these medications also may have acute cognitive impairment effects that could obscure results of any cognitive screening.

Where cognitive impairment is non-acute or slow to resolve, consider the presence of alcohol-related cognitive-impairment/ brain damage, Wernicke-Korsakoff's syndrome:

- Carry out more detailed bedside tests of cognitive function e.g. MoCA (see Box 19.1).
- If available, refer for neurocognitive assessment with clinical psychologist/neuropsychologist. The timing of assessment will depend on the reason for referral (e.g. inpatient referrals may request assessment to assist evaluate decision-making capacity early on in treatment). If abstinence is likely to be maintained, comprehensive testing post an initial acute period is preferable (1-2 months), however this needs to be balanced against the risk of potential relapse.
- Investigate and treat where possible other potential causes of cognitive impairment, such as Alzheimer's disease or other forms of dementia, vitamin B12 deficiency, cholinergic medications, neoplasm, ischaemia/infarction, traumatic brain injury, epilepsy, or other CNS disorder.
- Rule out psychiatric comorbidity, which may present with cognitive changes; for example, major depressive disorder, severe anxiety, psychosis.
- Emphasise the importance of abstinence for brain recovery to the patient and their support networks. Implement environmental interventions to optimise brain recovery and minimise risk of relapse (e.g. alcohol-free, low-stress, structured environment with emphasis on nutrition).
- Consider engagement in structured daily activities (e.g. community groups, volunteer work) as a way of promoting routine and structure. Consider social groups (drop-in coffee groups) that are not excessively cognitively demanding but facilitate social engagement. Alcoholics Anonymous or similar treatment groups which have an emphasis on structure and routine may also be appropriate for some people with CI.
- Conduct a risk assessment of the patient's safety to live independently in the community. Include a social worker and occupational therapist as part of this assessment process.
- Consider placement options. Meet with the family to discuss the patient's limitations and requirements for activities of daily living. Review supported accommodation options where appropriate. Consider the need for guardianship if the patient is significantly impaired, unsafe to live independently but has limited insight about requirements for care.

- Limiting access to resources (e.g. financial management, limiting access to places where alcohol may be obtained) may be an appropriate intervention if the patient does not have capacity to make informed decisions about his/her substance use or finances.
- Consider the need for involuntary treatment if the patient continues to drink and does not engage in appropriate treatment.
- Consider selected rehabilitation options if cognitive impairment is minimal and there is some capacity to learn new material and skills. Use strategies described above to engage patient in treatment and maintain contact.
- Where possible, focus on teaching appropriate behavioural management and relapse prevention in a repetitive, relatively concrete manner (see Box 19.2 for more suggestions).
- Consider the possibility of improvement in cognitive function after a significant period of abstinence and adjust treatment plan accordingly.

	RECOMMENDATION	GRADE OF RECOMMENDATION
19.4	Where cognitive impairment is confirmed, treatment should be tailored to meet the cognitive abilities of the patient (e.g. simplify instructions, appointment reminders).	A
19.5	Where cognitive impairment is identified, referral for cognitive remediation techniques may improve the patient's cognitive functioning and clinical outcomes (e.g. managing alcohol use) and may assist in engagement of other treatments.	GPP
19.6	Where cognitive impairment is more severe, utilisation of external supports (e.g. family members), referral to formal support services (e.g. National Disability Insurance Scheme) or legal interventions (e.g. guardianship) may assist to engage the individual in treatment and manage their alcohol use.	B

COGNITIVE REMEDIATION/REHABILITATION

Cognitive rehabilitation/cognitive training methods have been proposed as an intervention to restore and/or increase cognitive functioning in individuals with alcohol use disorder and potentially address impacts on treatment. There is some evidence of improved cognitive functioning in specific domains (e.g. executive functions, working memory) after use of cognitive remediation methods in individuals with substance use disorders. Moreover, combination of treatments, such as cognitive bias modification and goal management training have also been shown to increase cognitive outcomes, although there is insufficient evidence to date to recommend any one strategy. Additionally, while there is some consistency in the effectiveness of the approaches for the skill being trained, the extent of improvement in clinical outcomes, such as reduced relapse rates, is unclear. Cognitive recovery after abstinence also plays a large role in

the improvements seen in these studies. More systematic evidence by way of larger RCT studies using AUD individuals only is required, along with clearer evidence of improvement in long-term drinking outcomes and transfer of cognitive skills to broader recovery, in order to better elucidate the lasting effects of these techniques.

BOX 19.2: Possible treatment adaptations for individuals with cognitive impairment

**COGNITIVE WEAKNESS
ATTENTION**

POTENTIAL EVERYDAY IMPACT

- Short concentration span
- Easily distracted
- Problems following conversations/long instructions
- Tires easily

POTENTIAL STRATEGIES

- Limit environmental distractions (e.g. take to private, quiet room)
- Simplify and shorten discussions – focus on one or two main points
- Break tasks down into steps (e.g. use list and work through sub-steps)
- Monitor fatigue, take frequent breaks
- Shorten length of sessions

**COGNITIVE WEAKNESS
SPEED OF INFORMATION PROCESSING**

POTENTIAL EVERYDAY IMPACT

- May take longer to respond to questions or perform tasks
- Difficulty taking in lengthy, rapid or complex information
- May react slowly in response to situations

POTENTIAL STRATEGIES

- Slow delivery of information to a rate that matches the individual's speed
- Give plenty of time for patient to respond and complete tasks. Be patient
- Break information up into small components and address one thing at a time
- Expect the individual to require more time to benefit from interventions
- Coach patients in strategies which allow them more time for decision-making (e.g. taking time out)

COGNITIVE WEAKNESS

LEARNING AND MEMORY (MILD DEFICITS)

POTENTIAL EVERYDAY IMPACT

- Difficulty learning and retaining new information
- Problems retaining what has been discussed previously
- Missed appointments

POTENTIAL STRATEGIES

- Set an agenda at each meeting (e.g. dot points) and refer to this during session
- Present information in a number of ways – verbal, visual aids, doing with patient
- Repeat information and ask patient to put in own words to check understanding
- End session with a verbal and written summary
- Provide structure and routine (e.g. appointment same time on the same day)
- Encourage use of a diary/phone calendar/phone alarms
- Send reminders for upcoming appointments (e.g. via SMS or phone call the day before)
- Use name tags for staff

COGNITIVE WEAKNESS

LEARNING AND MEMORY (SEVERE DEFICITS)

POTENTIAL EVERYDAY IMPACT

- Inconsistent accounts of behaviour (e.g. last drink)
- Difficulty providing important details, including personal history, medical history, patterns of substance use
- Confabulation

POTENTIAL STRATEGIES

- Utilise external supports to facilitate engagement (e.g. transport to appointment)
- Consider heavily structured treatment options (e.g. AA groups, inpatient)
- Avoid treatments reliant on new learning of cognitive skills (e.g. CBT)
- Consider engagement with social activities that minimise memory (e.g. drop-in groups)
- Support planning with use of timetables, weekly planners, reminders for appointments
- With the individual's consent, seek to obtain information from an informant (e.g. family memory or caregiver) to corroborate and fill in key historical details

COGNITIVE WEAKNESS EXECUTIVE DYSFUNCTION

POTENTIAL EVERYDAY IMPACT

- Repetitive in words and actions
- Trouble multitasking
- Difficulty executing a complex task with multiple steps
- Concrete in thought
- Difficulty generating alternative solutions to problems
- Difficulty applying learnt information to other situations
- Difficulty thinking from the perspective of others
- Poor impulse and/or emotional control
- Reduced insight into behaviour

POTENTIAL STRATEGIES

- Use concrete examples and role plays rather than abstract concepts
- Encourage pre-planning of steps involved in a task
- Brainstorm potential problems in advance
- Provide clear and consistent boundaries and consequences for behaviour
- Reinforce positive behaviour (e.g. verbal affirmation, rewards)
- Encourage behavioural strategies (e.g. breathing exercises)
- Coaching self-talk strategies can also help to manage behaviour (e.g. 'stop, think, do')
- May need assistance and support to understand and complete complex forms
- Consider role of Guardianship, Financial Management, Involuntary Treatment
- Reduce exposure to behavioural triggers (e.g. access to alcohol)
- Verify information where important with a reliable informant



CHAPTER 20 **COMORBIDITIES: ALCOHOL WITH
POLYDRUG USE**

Authors | Mike McDonough & Linda Gowing

This chapter provides an overview of treatment approaches to patients who are using multiple drugs; with a specific focus on those who are polydrug dependent.



COMORBIDITIES: ALCOHOL WITH POLYDRUG USE

The most common comorbidity for people diagnosed with an alcohol use disorder is another substance use disorder; such disorders occur seven times more frequently in this population than in the general population. The most common comorbid substance disorders for people with alcohol dependence typically involve the use of other sedatives such as benzodiazepines, cannabis, opioids; also stimulants like nicotine and methamphetamine. Accordingly, people presenting with alcohol use disorders should be screened for other substance use disorders.

Having more than one substance use disorder increases risk to the individual and presents challenges for the treating clinician. The substances of greatest clinical significance in combination with an alcohol use disorder include:

- Tobacco smoking with nicotine dependence
- Pharmaceutical medication use, including those with adverse sedative interaction with alcohol such as benzodiazepines, gabapentinoids and antipsychotics like quetiapine
- Illicit drugs, including stimulants (e.g. methamphetamine)
- Opioids including analgesics and opioid agonist therapy.

The use of two or more substances known to have “abuse liability” concurrently with hazardous, harmful or dependent alcohol use (with reference to the International Classification of Diseases 11) is described herein as “alcohol and polydrug use”. It is important to recognise that most patterns of polydrug use involve alcohol and that there are various patterns of polydrug use, some involving episodic use of one or more other substances and others involving dependence on one or more than one substance. Most people with an alcohol use disorder combined with polydrug use have comorbid mental health problems, including background trauma-related disorders (e.g., PTSD) and disorders of personality (e.g. borderline and antisocial traits/cluster). Further, people with alcohol use disorder and polydrug use, often acquire medical complications because of their chronic, high dose, multiple substance exposure history. This can include smoking related diseases, cognitive injury from recurrent intoxication and/or overdose, liver disease, hypertension and cardiovascular disease from heavy alcohol and stimulant use. Hence, this is a complex population to manage in which both physical and mental comorbidity is commonly encountered along with polydrug use.

The motivation for polydrug use may be to control the level and the duration of intoxication. alcohol use disorder with polydrug use, as behaviour, appears directed towards achieving enhancement of desired drug effect by concurrent use of multiple drugs sharing similar effects (e.g. accumulating sedative interaction). In the presence of mental comorbidity, intoxication

may diminish distressing emotional experiences as discussed further in [Chapter 21](#). Another sometimes observed behaviour is some people's use of drug combinations with dissimilar effects in order to facilitate continued use of one or more substances. For example, combining stimulants like amphetamines with heavy alcohol consumption may result in reduced sedation from increasing alcohol intoxication effects, and thereby facilitate more drinking.

Another factor can be substitution of alcohol with another drug/s or vice versa, particularly when access to supply of one or other substances is variable. Finally, a second drug may be used to assist recovery from intoxication. For example, a sedative might be taken to suppress the unwanted persisting effects of a stimulant. Alcohol interactions with other drugs may be related to pharmacokinetic, pharmacodynamic and metabolic mechanisms. For example, in the presence of alcohol, cocaine is metabolised to cocaethylene, a long acting active metabolite that is thought to contribute both to intoxication and toxicity including cardiovascular injury.

WHY DO PEOPLE TAKE MULTIPLE DRUGS?

To control the level and the duration of intoxication

To enhance the desired drug effect by using drugs with similar effects (alcohol + benzodiazepines)

To reduce desired drug effect by using drugs with dissimilar effects to facilitate continued use (e.g., alcohol + stimulants)

To substitute another drug when access to another is limited

To help recover from intoxication (e.g., alcohol to mask the effects of a stimulant)

There is evidence of an increasing prevalence of alcohol use disorder within the ageing population (particularly amongst the 50 – 65 year old or “Baby-Boomer” cohort). This age group are also more likely to have used illicit drugs in the past, in contrast with previous generations. Further, an older population are more likely to be prescribed medications and have a high prevalence of polypharmacy. Several medications prescribed for the treatment of alcohol use disorder, with or without concurrent polydrug use, carry risk for adverse interaction. These possible interactions include naltrexone with opioid analgesics, disulfiram with warfarin, phenytoin, amitriptyline etc., and baclofen with benzodiazepines (latter sometimes prescribed for outpatient withdrawal treatment); also the latter two medications pose risk for adverse sedative interaction with alcohol i.e., should a lapse to drinking occur while on such prescribed medications. Therefore, the possibility for adverse drug-drug interaction always needs careful consideration in individuals with alcohol use disorder and polydrug use and/or while receiving polypharmacy.

SCREENING

Clinicians need to obtain a detailed alcohol and drug use history in order to assess the inter-relationships between alcohol use disorder and polydrug use. Because polydrug use can be episodic and may or may not include dependence on one or more substances, the detailed history is key to the assessment and subsequent diagnostic formulation. For example, episodic patterns of substance use may relate to specific situations and therefore be potentially amenable to specific behavioural intervention; also, one (or more) of the substances used may be related in some ways, like some opioid dependent people may use benzodiazepines to augment opioid effects or an alcohol dependent person taking stimulants to increase alertness and possibly even to facilitate further drinking.

Regarding screening for alcohol use disorder and polydrug use, there is a validated and recommended screening tool developed by WHO for the assessment of multiple drug use, the “Alcohol, Smoking and Substance Involvement Screening Test” (ASSIST; see [Appendix](#)). This screening tool has been designed to detect substance use (including multiple substances) and related problems in primary and general medical care settings, emergency departments and hospital outpatient settings, including obstetric units. The ASSIST provides a valid measure of substance-related risk both for the individual substances and for total substance use involvement. This screening tool can distinguish between people who are low risk substance users and those who have developed or are at risk of developing problems, including dependence on alcohol or other substances. The ASSIST is freely available online and also as an application for smart devices (“eASSIST”) which can be used by patients and automatically scored for the clinician (see [Appendix](#)).

In some cases, the degree of complexity related to comorbidity and risks may indicate to the clinician at the time of screening that specialist assistance be obtained. Addiction medicine specialists may work collaboratively with other clinicians in managing complex patients as clinically indicated.

ASSESSMENT & TREATMENT PLAN

Initial assessment should be comprehensive and include a medical, psychological, social and a broad substance use history ([Chapter 4](#)). Quantity frequency estimates of alcohol and other drug use must consider that alcohol use is often related to other drug use, for example, a person may increase their use of benzodiazepines when alcohol is not available. Medical and psychiatric comorbidity should be assessed, and risk stratification undertaken to ascertain which substance/s should be considered as priority for management. To do this, the following should be obtained: 1) the patient’s stated treatment goals, 2) a mental status assessment, and 3) physical examination, the latter two aspects requiring a particular focus on identification of comorbidity. Often, for this reason and because of the complexity of the alcohol use disorder and polydrug use, assessment is better performed after a detoxification intervention in a managed setting. When conducting any comprehensive assessment, it is an opportune time to undertake a medication reconciliation to identify what patient medications are deemed essential to continue, and similarly which medications can be reduced, withdrawn, or referred for other specialist advice.

Recognising that alcohol use disorder and polydrug use is frequently a condition associated with comorbidity, an essential consideration in any treatment plan is to outline how underlying comorbid conditions will be managed when undertaking an elective withdrawal and subsequently after the withdrawal phase. A commonly encountered problem in this setting is that some people change their mind about the initial treatment goal/s during or after the polydrug detox period and begin to seek additional dosing with another drug to substitute (e.g. alcohol dependent person also has chronic pain and is prescribed opioids and pregabalin, but after a required alcohol detox, now requests increases in opioid analgesic doses). Treatment planning before entering the withdrawal phase needs to include contingencies to manage any use of other/additional medication.

It is important to understand the pattern of alcohol and substance use, in order to determine which substances may be implicated in relapse to other substance use. For example, as alcohol use is often associated with tobacco smoking, if a patient wishes to undertake smoking cessation, an important part of relapse prevention involves concurrently addressing the alcohol use, due to the potential relationship with smoking outcomes.

It is common amongst individuals with alcohol use disorder and polydrug use to substitute substances, such that if one drug may be withdrawn (either intentionally, as a part of a treatment strategy, or involuntarily) another substance is substituted to replace the missing effect of the withdrawn drug. This must be considered when planning dose reductions, or even withdrawal, of one or more substances for individuals with alcohol use disorder and polydrug use. While initially reducing or withdrawing a substance may be a patient's preferred treatment goal and also be medically advisable, a later consequence may be replacement with another substance or pharmacotherapy. Integration of care, maintaining a single prescriber, or regular communication between prescribers, is helpful.

	RECOMMENDATION	GRADE OF RECOMMENDATION
20.1	All patients with alcohol-use disorders should be screened for other substance use using quantity–frequency estimates, or through structured screening instruments such as the ASSIST questionnaire.	GPP
20.2	Polydrug dependence is typically associated with higher levels of physical, psychiatric and psychosocial comorbidity. Comprehensive treatment plans should address use of alcohol and other drugs together, taking into account comorbidity.	GPP
20.3	Communication between clinicians is essential where more than one is involved particularly more than one prescriber.	GPP

ALCOHOL USE DISORDER AND POLYDRUG WITHDRAWAL

Withdrawal management for individuals with alcohol use disorder and polydrug use is complicated and the therapeutic approaches are highly reliant upon the substances currently being consumed and the dosages. While it is not possible to cover all approaches specific to alcohol and other substances and in their combinations, some common examples are briefly covered in this section.

SELECTIVE WITHDRAWAL

In some situations, patients may only be ready to withdraw from one or two substances. This can often be undertaken in an outpatient setting ([Chapter 8](#)). This will require the provision of supportive care and regular monitoring. Any medication would usually be provided via daily supervised dispensing (although if good family support is available, a family member may be prepared to take responsibility for daily supervision of medication).

NICOTINE

Nicotine is the most common substance used concurrently by people with alcohol use disorder. Smoking cessation support should always be provided to current smokers as part of overall withdrawal management in all settings. Within public sector treatment services (which are all designated “smoke free” zones) it is usual practice to provide appropriate nicotine replacement therapy for any patients who may be nicotine dependent, including cannabis smokers who mix cannabis and tobacco. Varenicline as a pharmacotherapy is safe and effective in smokers with alcohol use disorder, and some evidence suggests it may be helpful treating both. However, some people are not motivated to stop smoking and may be unwilling to enter a smoke free treatment facility or to adhere to this policy. Pragmatic approach to managing this problem includes open discussion of treatment policies and options, preferencing outpatient management, accepting nicotine replacement for the inpatient stay, or allowing access to a smoking area or periods of leave.

	RECOMMENDATION	GRADE OF RECOMMENDATION
20.4	Smoking cessation treatment can be undertaken concurrently with treatment of alcohol dependence – varenicline may support reduction in both tobacco smoking and alcohol consumption.	C

CRISIS AND EMERGENCY SITUATIONS

Patients may present in a crisis situation seeking polydrug withdrawal support, such as a family crisis scenario, or a pending court case. For crisis situations it is typically recommended that

withdrawal support be provided in an inpatient setting, such as a community detox unit that provides 24-hour monitoring.

Sometimes, patients may present in an emergency hospital setting and require surgery or other acute medical treatment. Inpatient-monitored withdrawal support entails identifying the substance having greater withdrawal severity risk (usually alcohol, followed by other sedatives) with linkage to ongoing care after discharge. Added caution is suggested for patients with borderline personality disorder presenting in crisis, because such circumstances do not always respond well to inpatient treatment. Therefore, unless underlying serious medical/psychiatric conditions exist, independently requiring an inpatient admission, such patients are recommended for brief crisis intervention. Withdrawal management as described in [Chapter 8](#) should be planned for a later time, when a crisis setting does not prevail.

	RECOMMENDATION	GRADE OF RECOMMENDATION
20.5	Patients undergoing polydrug withdrawal need close monitoring, increased psychosocial care, and increased medication. Consider specialist advice.	GPP

OPIOID AND OTHER SEDATIVE DRUGS

While sedative drugs may provide some benefit to overall withdrawal symptoms, the higher the overall estimated daily exposure to alcohol and other sedatives, the higher the likely withdrawal severity. Alcohol is the substance that is most likely to require withdrawal treatment, and is treated with benzodiazepines (see [Chapter 8](#)). When providing such treatment for a patient also consuming multiple sedative drugs, the alcohol withdrawal is likely to be more severe and thus require larger benzodiazepine doses. Typically, a longer acting benzodiazepine like diazepam is given in a sequential loading dose procedure ([Chapter 10](#)).

STIMULANTS

When stimulants are a part of a polydrug use mix, these drugs usually do not require additional specific pharmacotherapy treatment because sudden discontinuation of heavy regular stimulant use is likely to be associated with sedation.

Both alcohol and stimulants are associated with increased cardiovascular risk, so in a treatment setting, people with heavy use of alcohol and stimulants should always receive screening for cardiovascular effects. While hypertension is a common finding in acute presentations, stress and withdrawal typically increases blood pressure and therefore measurements taken after withdrawal has abated, are generally more reflective of any underlying hypertensive state.

RELAPSE PREVENTION PHARMACOTHERAPIES

Prescribing any medication to a patient actively engaged in polydrug use poses particular risk for adverse medication interaction, coupled with the likelihood of poor adherence. Initial detoxification is generally recommended prior to prescribing most relapse prevention medication. There is no relapse prevention medication specific for alcohol use disorder with polydrug use, however, such medication is available for alcohol, nicotine and opioid dependence. Commonly prescribed alcohol use disorder pharmacotherapies, and opioid substitution therapies are briefly covered below.

ALCOHOL USE DISORDER PHARMACOTHERAPIES

Medications recommended for alcohol relapse prevention include disulfiram, naltrexone and acamprosate; other medications including baclofen and topiramate are sometimes used “off label” (see [Chapter 10](#)). Alcohol dependence complicated by polydrug use may also be treated using these medications. The risk for adverse interaction with these medications is generally low, with the exception of opioids with naltrexone. However, in patients with combined opioid and alcohol use problems, naltrexone started after cessation of opioids may help with relapse prevention for both alcohol and opioid drugs. The use of disulfiram for alcohol use disorder with polydrug use should be considered carefully as it can interact with a range of medications and other substances. Nonetheless, it may be considered an option when alcohol use disorder is clearly linked to the patients’ use of other drugs, for example, a patient on methadone treatment develops alcohol dependence, so is given disulfiram concurrent with methadone dosing in order to prevent relapse to dependent drinking while allowing safer continuation of methadone treatment. There is also limited evidence that disulfiram might be useful in cocaine relapse prevention. Baclofen is sedating and should be avoided in patients concurrently using prescribed or non-prescribed sedatives.

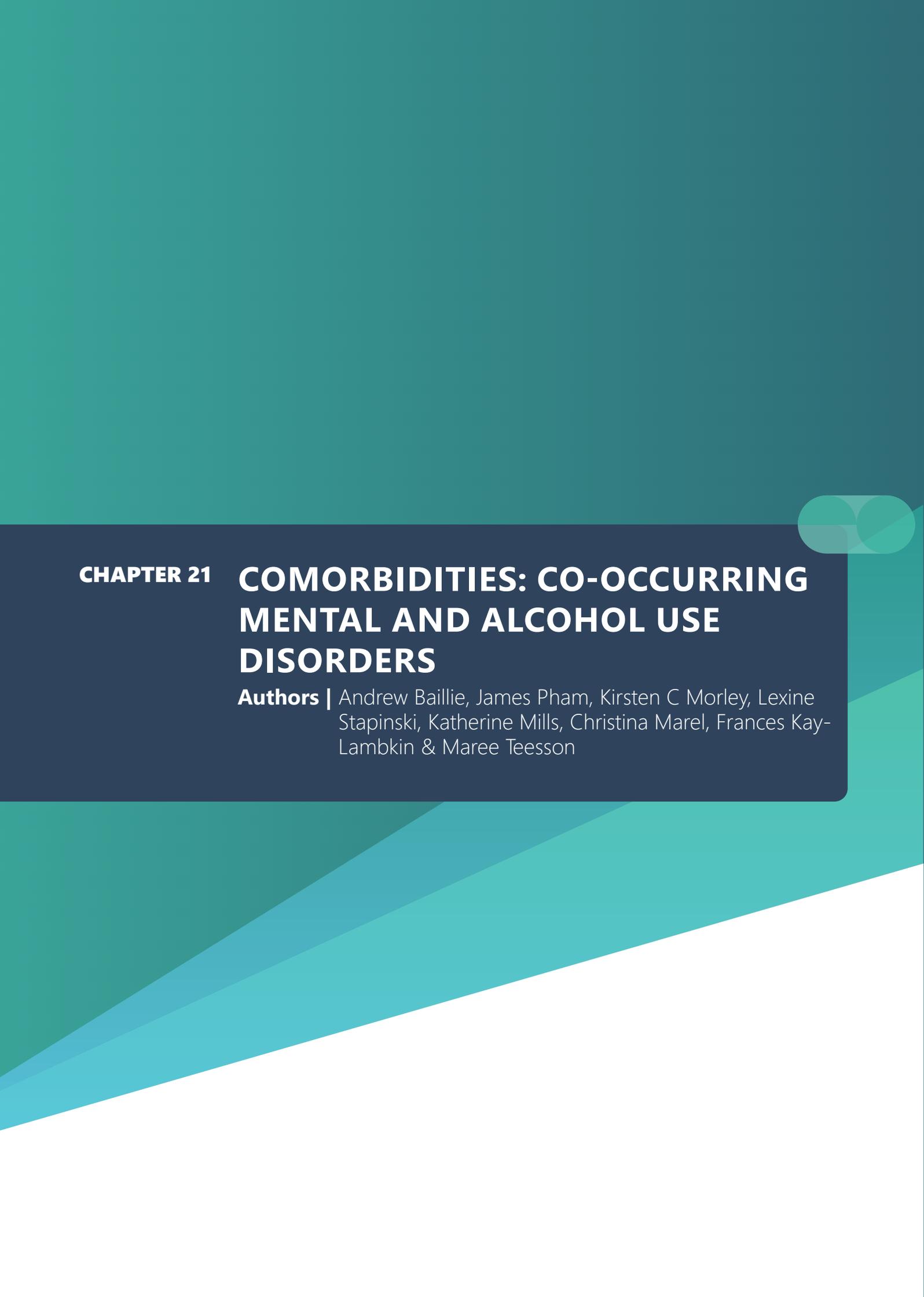
OPIOID SUBSTITUTION THERAPIES

Generally, any alcohol use disorder and/or polydrug use is a precaution for opioid agonist therapy (OAT) using methadone or buprenorphine but following a comprehensive assessment, a patient identified to have opioid dependence and alcohol use disorder may be considered appropriate for OAT. In such situations, it is generally recommended that this treatment be commenced in an inpatient setting (e.g. detox unit) to reduce the risk for adverse interaction of alcohol, opioids and other drugs such as benzodiazepines. Subsequent close monitoring in an outpatient setting for any signs of relapse to alcohol and/or polydrug use is strongly recommended. Daily dispensing of OAT should be preferred in people with alcohol use disorder and suspected intoxication monitored using a breathalyser. Doses can be reduced or withheld if intoxication is confirmed. Brief intervention may be effective to reduce alcohol use (see [Chapter 6](#)). Particular caution is advised when considering the buprenorphine depot formulation in patients with active alcohol use disorder. It is also important to be aware that in some OAT patients, alcohol and/or polydrug use may be related to inadequate opioid substitution dosing and if so, a therapeutic trial of higher opioid dose is worth considering, following discontinuation of the alcohol/polydrug or inpatient intervention.

	RECOMMENDATION	GRADE OF RECOMMENDATION
20.6	Patients dependent on alcohol and benzodiazepines or opioids should be stabilised on agonist medications while undergoing alcohol withdrawal.	GPP
20.7	Active alcohol use disorder significantly increases the risk of overdose associated with the administration of opioid drugs for chronic pain or substitution treatment of opioid dependence. Close monitoring is required, and if blood alcohol levels confirm intoxication, reduce or withhold administration of opioid drugs. Specialist advice is recommended before treatment of people dependent on both alcohol and opioid drugs.	GPP

CONTINUING CARE

The morbidity and mortality associated with alcohol use disorder and polydrug use warrant formulation of a continuing “Care Plan” by clinicians assessing and/or providing any acute intervention. This plan should incorporate a strategy for regular review with the patient, collaborating with key supports that patient may have (e.g. family, spouse, good friends, carer, community pharmacist, other prescribers), that also helps provide collateral information to assist with clinical monitoring.



CHAPTER 21 **COMORBIDITIES: CO-OCCURRING
MENTAL AND ALCOHOL USE
DISORDERS**

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COMORBIDITIES: CO-OCCURRING MENTAL AND ALCOHOL USE DISORDERS

Co-occurrence of mental and alcohol use disorders presents special challenges in the treatment of people with alcohol problems.

Comorbid mental disorders are common among people with alcohol problems. In Australia, of the 8841 people surveyed in 2007 for the National Survey of Mental Health and Wellbeing, 2.9 per cent met the criteria for harmful alcohol use, and 1.4 per cent met the criteria for alcohol use disorder (AUD). Of this latter group half (53.6%) met the criteria for an anxiety disorder and one-third (34.0%) met the criteria for an affective or mood disorder (ABS 2008). Other disorders associated with alcohol use disorder include other substance use disorders. Conversely, among people with mental disorders, such as depression, 34% of men and 15% of women have concurrent alcohol use problems. Exposure to trauma (such as witnessing serious injury or death, being involved in a life-threatening incident, or being threatened with a weapon etc) is very common among people with an alcohol use disorder. While people with post traumatic stress disorder (PTSD) are more than five times more likely to have an alcohol use disorder than people without PTSD only 5% of people with an AUD meet criteria for PTSD. Approximately one in five people with schizophrenia will have an alcohol use disorder at some time in their life. Thus, comorbid mental disorders are sufficiently common for their presence to be expected and their treatment planned for.

The following section is to be read in the context of the Australian national *Guidelines for the management of co-occurring alcohol and other drug and mental health conditions in alcohol and other drug treatment settings* (Marel et al., 2016) (www.comorbidityguidelines.org.au). These national guidelines provide more advice and resources than is contained here. Additional assistance can be obtained from guidelines for specific disorders found in **Appendix 6a**. To these resources, the following section provides specific information and recommendations about alcohol use disorders and adds research published since 2015.

Figure 21.1 shows guiding principles for working with people with comorbid alcohol use and mental disorders adapted from Marel et al (2016, p15)

When working with clients with comorbid mental health conditions, it is recommended that health services and health professionals take the following principles into consideration as described throughout these guidelines:

- As an individual health professional, work within your capacity (your scope of practice, or the bounds of your clinical competence) be realistic about what you can achieve, use the expertise of others, and coordinate care.
- Recognise that the management of comorbidity is part of the core business of health care.
- Provide equal of access to care.

- Adopt a ‘no wrong door’ policy. The onus isn’t on the consumer of health care to understand how health services are organised nor for the consumer to know the best place to seek help, rather it is the responsibility of health care professionals to coordinate care and assist the person to receive optimal care.
- Recognise that comorbidity is common and that all clients should be routinely screened for comorbid conditions.
- Conduct ongoing monitoring of symptoms and assessment of client outcomes.
- Adopt a client-centred approach.
- Emphasise the collaborative nature of treatment.
- Have realistic expectations, a non-judgemental attitude, and a non-confrontational approach to treatment.
- Express confidence in the effectiveness of the treatment program.
- Involve families and carers in treatment.
- Consult and collaborate with other health care providers; and
- Ensure continuity of care.

In discussing comorbid mental disorders, this section uses the terminology of the fifth edition of the *American Psychiatric Association’s Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 2013) or the *World Health Organisation’s International Classification of Diseases, 11th edition* because they provide specific criteria that define each disorder. These classifications are useful because they are the most common classifications used in the research literature. Alcohol use disorder and the majority of the mental disorders are syndromes defined by characteristic patterns of reported symptoms and observed signs. Reported symptoms and observed signs are real, while syndromes are names to describe patterns of signs and symptoms that occur together, that have a common clinical course and that have some clinical utility. While underlying mechanisms that explain these symptoms and signs may be revealed by future research, these disorders remain descriptive syndromes.

Comorbidity presents diagnostic and management dilemmas. When a person first seeks assistance for an alcohol use disorder, motivation and engagement are crucial, as is gathering information and developing a shared understanding of the issues faced. Symptoms and concerns expressed in those initial contacts may demand immediate attention. With time it may become apparent that some concerns are the direct effects of intoxication or withdrawal from alcohol, and remit with abstinence or significant reductions in drinking. In other cases, mental disorders develop in parallel with alcohol use disorders. Still further cases show signs of mental disorders and alcohol interacting to cause greater problem severity, greater functional impact and poorer response to treatment. In addition, mental disorders may emerge or worsen in early abstinence from alcohol and may have been “masked” by alcohol. Differential diagnosis may be more important for longer term interventions - irrespective of how comorbidity developed initial management and treatment is usually similar.

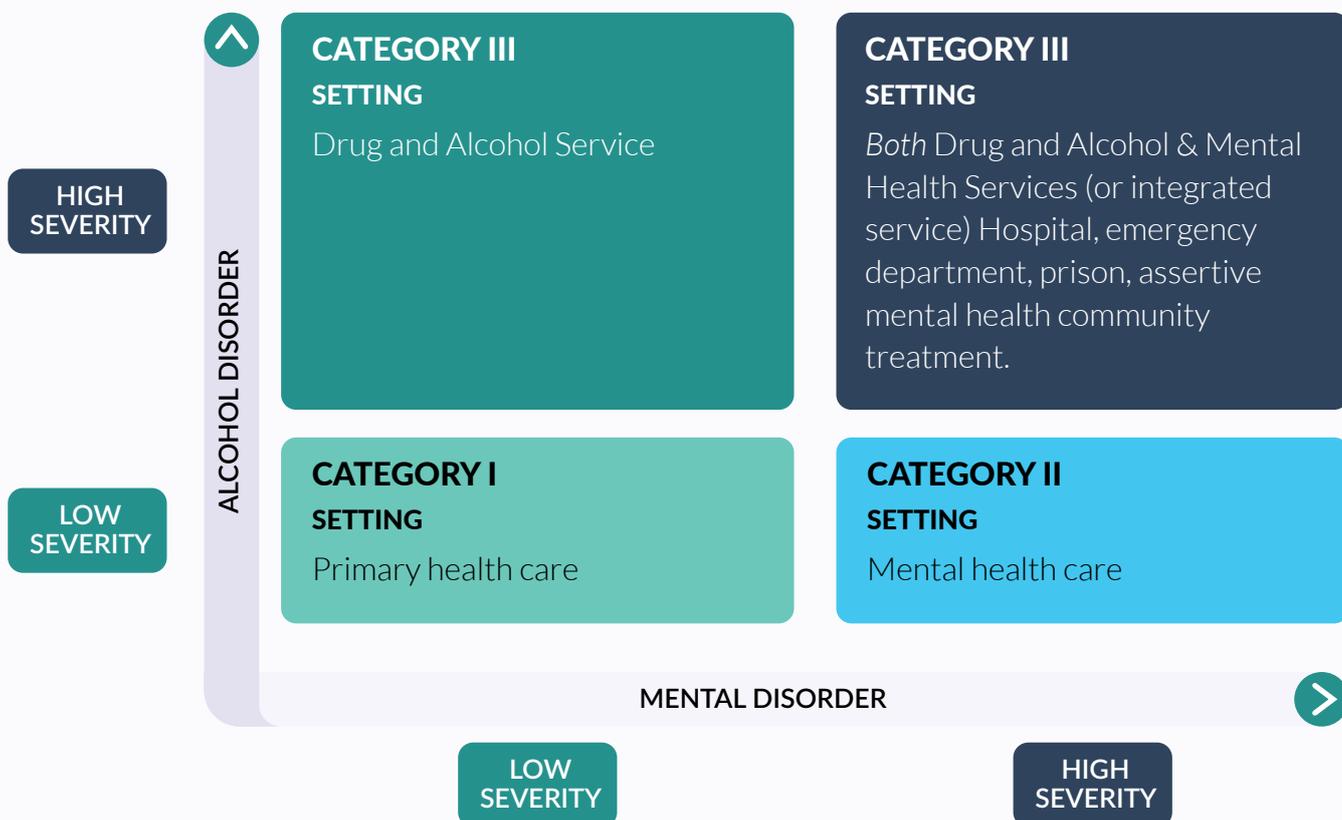
Because comorbidity often implies a person has two related disorders, it may be better to consider multimorbidity both as a term and as a reminder to consider a broad range of health and related problems.

People with comorbid alcohol use and mental disorders should be offered treatment for both disorders as part of routine care. Interventions for people with comorbidity should be more intensive, as this population tends to be more complex and carries a worse prognosis than those with single disorders. Care should be taken to co-ordinate interventions so that they are integrated and complement each other.

Integration and coordination of care for people with comorbid alcohol use and mental disorders should occur at service or team level as well as within the care provided to individuals. Specialist services for people with alcohol problems need expertise in the assessment and treatment of comorbid mental disorders. People referred from one service to another sometimes don't take up the referral (for a wide variety of understandable and legitimate reasons), and different services sometimes have different criteria for eligibility. In a siloed healthcare system, it is easy for people with more complex problems to "fall between the cracks". Thus, to ensure the continuity of care, it is desirable to bring mental health expertise into alcohol treatment services rather than expecting people with comorbid disorders to cope with geographic, administrative and clinical differences between services. Guidelines advocating for integrated care for people with chronic and complex health conditions should be applied. Integration of the content of treatment is discussed in following sections.

Figure 21.1 illustrates the levels of integration of specialist drug and alcohol and mental health services. Depending on the relative severity of the alcohol use disorder and mental disorder, care can be provided in an appropriate specialised setting or in a primary care setting. As an example, the Victorian *Guidelines for Alcohol and Drug Programs* list comorbid mental disorders as one of the criteria for admission to subacute beds for withdrawal (VicHealth, 2018).

FIGURE 21.1 Level of care for people with co-occurring alcohol use and mental disorders



Note: Adapted from Cener for Substance Abuse Treatment 2005. Substance abuse treatment for persons with co-occurring disorders. Treatment Improvement Protocol (TIP) Series 42, DHSS publication no. (SMA) 05-3922. Substance Abuse and Mental Health Services Administration, Rockville MD.

	RECOMMENDATION	GRADE OF RECOMMENDATION
21.1	People with alcohol use disorder and comorbid mental disorders should be offered treatment for both disorders. Care should be taken to coordinate intervention.	C
21.2	More intensive interventions are needed for people with comorbid conditions as this population tends to be more disabled and carries a worse prognosis than those with single pathology.	GPP
21.3	At a minimum all Alcohol and other drugs (AOD) workers should be 'comorbidity informed', knowledgeable about the symptoms of the common mental disorders and how to manage these symptoms.	GPP

ASSESSMENT AND DIAGNOSIS

Based on Marel et al's (2016, p62) *National Comorbidity Guidelines*

- Given the high rates of mental disorders among people with alcohol use disorders, it is essential that routine screening and assessment be undertaken for these conditions as part of case formulation.
- Screening and assessment set the scene for the future client/worker relationship and need to be conducted in a compassionate and empathic manner while *acknowledging the positive and negative impacts of alcohol use*.
- It is important to consider a comprehensive problem list in the process of case formulation (e.g., sociocultural factors; living situation; legal issues; financial; family and relationships; and medical and personal history), not only AOD and mental health issues.
- Full assessment should ideally occur subsequent to a period of abstinence, or at least when not withdrawing or intoxicated.
- Multiple assessments should be conducted throughout a person's treatment as symptoms may change over time.
- It is important to provide assessment feedback to the client in a positive, easily understood manner.

PEOPLE PRESENTING AT DRUG AND ALCOHOL SERVICES

Assessment for comorbid mental disorders and symptoms should form part of standard assessment procedures (see [Chapter 4](#)).

It is essential that assessment of common problems such as anxiety and depression are routine practice in alcohol treatments settings.

It is important to keep in mind that one purpose of assessment is to identify the issues that need attention. Particularly with complex and chronic problems, it is important to engage the person as they may have had multiple partially successful interactions with health services with the possibility of stigma and demoralisation. Assessment should also be focused on identifying the most pressing needs for the person including those that have the most immediate impact on their survival and quality of life. In this way, risk for suicide while intoxicated is a more immediate priority in assessment than differential diagnosis of major depressive disorder; risk for domestic violence more important than assessment of post-traumatic stress disorder; risk for tiredness and reduced motivation more important than assessing a sleep disorder; and impulsive risk taking more immediate than attention-deficit hyperactivity disorder. It is often necessary to begin treatment for potential comorbid concerns before a differential diagnosis can be established. Longer term care is benefited from broader awareness of the underlying conditions but collecting evidence for these should not interfere with engaging the person nor resolving immediate priorities. A period of abstinence (traditionally 4-6 weeks) is the most widely used way to make a differential diagnosis, recognising that abstinence may be difficult for some to achieve and treatment is often required before abstinence can be achieved.

WHEN SHOULD ASSESSMENT OCCUR?

Assessment of comorbid mental disorders should occur a) for all at first contact, b) when triggered by positive responses to screening, c) when the client requests it, d) when the client has or is likely to drop out from treatment, e) when progress is not as expected, or f) when there is an unexpected or abrupt change in the client's condition.

A first step in assessment of comorbid mental disorders is consideration of their severity. Milder symptoms of anxiety and depression may not need separate attention, but more severe forms may change the focus and setting of treatment. The Kessler 10 Symptom Scale otherwise known as the K10 is a widely used measure of psychological distress that appears suitable to screen for wide a variety of mental disorders (see [Appendix](#)). A briefer 6 item version, the K6, appears to have similar screening properties and may be preferred for brevity. It also may be repeated to monitor progress and as an outcome measure in people with anxiety and depressive disorders.

Differential diagnosis may take time and should not be a barrier to starting treatment focused on symptoms. As above a period of abstinence (conventionally 4-6 weeks), or significantly reduced drinking, is a key method. In addition, taking a careful history may reveal that comorbid mental disorders began before drinking. For example, antidepressant treatment for depressive disorder is more effective when that disorder began before the onset of drinking or when

the depression persists beyond abstinence compared to depression that only occurs within “active alcohol use disorder”. It may also be useful to pay attention to the symptoms present – low mood, agitation, insomnia and arousal may be explained as the effect of drinking or as a separate anxiety or depressive disorder, while phobic avoidance, flashbacks, thought disorder are more likely to indicate separate mental disorders. Where there is confidence that a separate mental disorder is present, or there are disturbing impairing symptoms, optimal intervention should be made available without delay.

Following a positive screen on the K10 or K6 a more detailed assessment for specific mental disorders may be required. We found little evidence to recommend for or against any of the typically available options such as referral for a psychiatric opinion, the use of structured or semi structured diagnostic interviews, further questionnaires to assess specific disorder, and/or a clinical interview. In the absence of definitive evidence, clinical consensus is that any of these methods for more comprehensive assessment is acceptable if they can be achieved in a timely, co-ordinated, compassionate and engaging way.

Where there is more time available or the likelihood of comorbidity is higher, specific screening questionnaires for common comorbidities are likely to provide additional information as part of a comprehensive assessment. Standardised questionnaires with validation for screening against gold standard clinical interview in comorbid samples are the Adult Attention deficit hyperactivity disorder (ADHD) Self-Report Scale for ADHD (level C evidence), The Psychosis Screener (also with level C evidence). The Trauma Screening Questionnaire (TSQ) and Primary care PTSD screen (PC-PTSD) (D), Short Sleep Index for insomnia (D), The Eating Disorder Examination – Questionnaire EDEQ for eating disorder (D), and the Iowa Personality Disorder Screen (IPDS-SR, 11items) and the Standardized Assessment of Personality-Abbreviated Scale (SAPAS-SR, 8 items) for personality disorders (D) may be used.

Formal routine monitoring of progress with feedback to clinicians and consumers may be a useful in identifying those who are not progressing as expected (Crits-Christoph et al., 2012; Lambert, 2010) and additional benefits may result from standardised assessment of the barriers to progress (such as motivation and therapeutic alliance see [Chapter 9](#)).

Assessment of comorbid mental disorders should be conducted regularly as the clinical picture can change with improvements in alcohol use. People with comorbid mood and alcohol use disorder should be regularly assessed and monitored for risk of suicide according to established guidelines (see [Appendix 6a](#)).

	RECOMMENDATION	GRADE OF RECOMMENDATION
21.4	The K10 or K6 are recommended for screening for comorbid mental disorders in people presenting for alcohol use disorders.	A

	RECOMMENDATION	GRADE OF RECOMMENDATION
21.5	Differential diagnosis of comorbid disorders should take place after resolution of withdrawal, which may account for some anxiety and depressive symptoms.	B
21.6	To identify specific mental disorders the Adult ADHD Self-Report Scale (ASRS) is recommended to screen for Attention Deficit Hyperactivity Disorder as is The Psychosis Screener as a screen for psychotic disorders as part of a comprehensive assessment.	C
21.7	The Trauma Screening Questionnaire (TSQ) and/or the Primary Care PTSD Screen (PC-PTSD) are recommended to screen for PTSD, Short Sleep Index for insomnia, Eating Disorder Examination –Questionnaire (EDEQ) for eating disorders, and the Iowa Personality Disorder Screen (IPDS-SR) and/or the Standardized Assessment of Personality-Abbreviated (SAPAS-SR) for personality disorders, as part of a comprehensive assessment.	D
21.8	Routine standardised assessment of alcohol use and symptoms of comorbid disorders may alert clinicians to clients who are not progressing as expected to identify and manage barriers to progress.	GPP

PEOPLE PRESENTING TO MENTAL HEALTH SERVICES

Alcohol use and the problems it can lead to are sufficiently common that the alcohol use of all people who come in contact with mental health services should be assessed. The Alcohol Use Disorders Identification Test (AUDIT) (see [Chapter 4](#)) appears to be a suitable screening tool for identifying hazardous or harmful alcohol consumption and alcohol dependence among people presenting for mental health services.

A non-judgemental attitude to alcohol use is a crucial for the assessment and management of alcohol use disorders in mental health services. If AUDIT scores are in the hazardous or harmful range psychoeducation and practical advice to reduce drinking may be sufficient. If significant harms from drinking are revealed or the person has indications of dependence it is more likely that the alcohol problem is unlikely to improve by focusing solely on their mental disorders and specific treatment is recommended. As above differential diagnosis is possibly only useful for long term management and is unlikely to be the top clinical priority. Alcohol use should not be dismissed as an acceptable way to cope with a mental disorder. The recommendations for the psychological and pharmacological management of alcohol use disorders throughout in this document should be implemented. There is mixed evidence for the use of brief interventions for alcohol use in those with other mental disorders. Thus, it may be reasonable to employ brief

interventions for alcohol if there is adequate monitoring and follow-up so that intervention can be stepped up if treatment goals are not achieved.

Alcohol use is associated with increased risk for suicide. Intoxication is likely to increase the changeability of suicide risk and present an increased acute risk. Withdrawal and early abstinence may also be a period of increased risk as distress and symptoms that may indicate a mental disorder may increase. People with comorbid mood and alcohol use disorder should be regularly assessed and monitored for risk of suicide according to established guidelines (see [Appendix 6a](#)).

	RECOMMENDATION	GRADE OF RECOMMENDATION
21.9	AUDIT in full or briefer versions (AUDIT-C) is recommended to help identify AUD in those attending mental health services as part of a comprehensive assessment.	A
21.10	Brief intervention including motivational interviewing is recommended for people with mental disorders and hazardous or harmful alcohol use who are presenting for mental health care with adequate monitoring and follow-up to step up intervention if reduced drinking is not achieved.	D

TREATMENT

As a general principle co-occurring mental and alcohol use disorders should be managed in parallel or in an integrated fashion with evidence-based treatments provided for both problems. Users of these guidelines should consult clinical practice guidelines for specific mental disorders, and in the absence of guidance or evidence to the contrary, apply those recommendations to the care of those with comorbid conditions. Care should be taken to coordinate treatments, so they are complementary rather than contradictory.

THE SETTING AND ORGANISATION OF CARE

As comorbidity is the norm rather than the exception in people seeking help for alcohol use disorders, services should plan for and anticipate comorbidity. Experiences of trauma are very common in people attending alcohol and other drug services and it is good practice to consider trauma informed care in designing spaces, policies and procedures so as not to unnecessarily trigger traumatic memories. Creating a safe space with sufficient privacy, free of violent or sexual material on TV screens or in magazines (eg in waiting areas), and sufficient staffing to monitor the behaviour of others who may be perceived as intrusive or harassing are some key features of trauma informed care.

Alcohol use disorders can be chronic and impact on client motivation and this is even more pronounced in people who also have comorbid mental disorders thus it is a good practice point to consider that care be organised to provide integrated, co-ordinated, engaging care with minimal administrative barriers. Consensus guidelines for the management of multimorbidity and the comorbidity guidelines lead to the following recommendations.

RECOMMENDATION		GRADE OF RECOMMENDATION
21.11	Trauma informed care can help the design of spaces, policies, and procedures to avoid unnecessarily triggering those with experiences of trauma.	GPP
21.12	Offer care that is tailored to the person's personal goals and priorities.	GPP
12.13	Consider reducing interventions that have a high burden on the individual in case adherence may be compromised.	GPP
12.14	Develop and agree upon an individualised management plan with clear responsibilities for coordination of care.	GPP

E-HEALTH & E-THERAPY INTERVENTIONS

Providing care face to face is the most common way for alcohol treatment to proceed. Since the last edition of these guidelines ehealth and in-particular providing psychological interventions over the internet has become a more viable option. Such e-therapies can be effective and may improve access to care. These interventions provide information, describe the procedures of psychological therapies and provide individualised support in a variety of ways. They are not simply the switching of face to face contact with that provided by telephone or teleconferencing.

While e-therapies for common mental disorders are available (such as MindSpot, (<https://mindspot.org.au/>), this way up (<https://thiswayup.org.au/>), Beacon (<https://beacon.anu.edu.au/>) eMHprac (<https://www.emhprac.org.au>), HeadtoHealth (<https://headtohealth.gov.au/>)) those specific to comorbid substance use and mental disorders are more difficult to access because they are often the subject of research trials without any mechanism for widespread dissemination. E-therapies are not a solution to workforce shortages. For drug and alcohol services without the staffing to provide intervention for comorbidity onsite e-therapies may provide a useful addition to treatment plans. However, care should be taken to coordinate the intervention so as to monitor progress, ensure continuity of care, and maximize engagement.

RECOMMENDATION	GRADE OF RECOMMENDATION
21.15	e-therapy may provide timely and economical access to evidence based therapies for comorbid mental disorders as part of a broader treatment plan where progress is monitored, and engagement and continuity of care are maintained.

OVERALL COMMENTS ON PSYCHOSOCIAL INTERVENTIONS

As a general principle comorbid mental disorders should be treated according to the clinical practice guidelines for those specific disorders. Care should be coordinated and integrated, but little evidence supports use of specific packages that integrate the content of psychological interventions. There are notable exceptions (e.g. comorbid PTSD & alcohol) to this which are covered below.

Some considerations are:

- Where possible the same health professional should provide treatment for both alcohol use and comorbid disorders and if not;
- Any combination of specific techniques should be coordinated.

It may be that, among people who are severely alcohol dependent, a focus on comorbid mental disorders may divert attention from the crucial immediate task of reducing alcohol consumption early in treatment and hence interfere with longer term outcome. There is an alternative view that that engaging people with treatment for their comorbid disorder might be a way to get some initial gains, build momentum and rapport that then orients the person to be ready to work on the alcohol use disorder.

As a general rule when people are learning new ways to manage distress and emotions, they often experience greater distress and stronger emotions. Particularly when they are trying not to cope by drinking, it is likely that they will feel worse in the short term. Psychoeducation about the likely experiences of abstinence or reduced drinking is an important part of any intervention.

Specific psychological interventions that have strong empirical support for treating mental disorders uncomplicated by comorbidity are cognitive behavioural therapy, behaviour therapy, cognitive therapy, and interpersonal therapy. Other psychotherapies may be effective but there is generally insufficient evidence to recommend their use.

	RECOMMENDATION	GRADE OF RECOMMENDATION
21.16	Provide psychoeducation about the nature and prevalence of comorbid mental disorders in alcohol use disorders and the likelihood of improvement with abstinence or significant reductions in alcohol use.	GPP

OVERALL COMMENTS ON PHARMACOLOGICAL TREATMENT

Pharmacological treatments have proved effective in treating anxiety, depression and psychosis in co-occurring mental and alcohol use disorders. The overall approach recommended by Kranzler and Soyka (2018) is *“When psychiatric symptoms persist despite a substantial reduction or cessation in drinking, the optimal approach is to continue alcohol pharmacotherapy and add a specific psychiatric medication.”* (p 817).

As earlier, the following guidance should be read in conjunction with clinical practice guides for specific comorbid mental disorders. What follows focuses on whether the medication 1) is superior to placebo in terms of its primary target 2) does not lead to worse alcohol outcomes, and 3) leads to improved overall outcomes such as quality of life.

Given the complexities of co- and multi-morbid presentations, guidance on polypharmacy (National Institute for Health and Care Excellence, 2017) and on “off label” prescribing (Royal Australian and New Zealand College of Psychiatrists, 2018) are important to consider. The potential for drug-drug interactions should be taken into account. The side effect profile of any medications prescribed should be considered for potentially exacerbating any comorbid conditions. Clinicians should also be alert to the possibility of poorer adherence to prescriptions and increased risk of overdose while intoxicated. As above the co-ordination of care between different health professionals is crucial.

	RECOMMENDATION	GRADE OF RECOMMENDATION
21.17	When symptoms of mental disorders persist despite a substantial reduction or cessation in drinking, the optimal approach is to continue alcohol pharmacotherapy and add a specific psychiatric medication.	GPP
21.18	People receiving pharmacotherapy for alcohol use disorders with comorbid mental disorders should be more closely monitored for exacerbation of their comorbid symptoms.	GPP

NEURODEVELOPMENTAL DISORDERS

Attention deficit hyperactivity disorder (ADHD) appears common in people attending alcohol treatment settings. One randomised controlled trial (RCT) supports the use of integrated cognitive behaviour therapy (CBT) for ADHD and alcohol use disorder over CBT for alcohol at least in the short term with no worse alcohol outcomes. CBT for ADHD is likely to include problem solving strategies, strategies for improved attention, and to reduce impulsivity and unhelpful thinking patterns.

The following summarises the recommendations for ADHD from the comorbidity guidelines. Pharmacotherapies for ADHD including psychostimulants (e.g., methylphenidate & dexamphetamine) and noradrenaline reuptake inhibitors (atomoxetine) have been shown to be beneficial in people with ADHD and comorbid substance use. Their effect is not as large for people with comorbidity compared to those only experiencing ADHD. It is recommended they be used in combination with psychotherapy because of greater effectiveness. A thorough medical assessment to rule out cardiovascular and other contraindications for psychostimulant prescribing is recommended. While psychostimulants are more effective than other pharmacotherapies it is necessary to carefully weigh their benefits against the potential risk for diversion and misuse and include risks of suboptimal treatment of ADHD.

The UK NICE Guidelines on ADHD (National Institute for Health and Care Excellence, 2019) recommend that titration of ADHD medication dose be slower and monitoring more frequent in those with “substance misuse”.

	RECOMMENDATION	GRADE OF RECOMMENDATION
21.19	Integrating CBT for ADHD and CBT for alcohol use disorder may lead to better ADHD outcomes than focusing on alcohol alone at least in the short term.	C
21.20	Psychostimulants (methylphenidate) and noradrenaline reuptake inhibitors (atomoxetine) have been shown to be beneficial in people with ADHD and comorbid substance use including alcohol.	B
21.21	Titration of ADHD medication dose should be slower and monitoring more frequent in those with “substance misuse”.	GPP

SCHIZOPHRENIA SPECTRUM AND OTHER PSYCHOTIC DISORDERS

Atypical antipsychotics appear to be the first line of treatment of comorbid psychotic illness and substance use disorders.

For people with alcohol use disorders and schizophrenia, no compelling evidence supports one psychosocial treatment over another to reduce substance use or improve mental state. A Cochrane review of treatment programs for people with both severe mental disorder and substance misuse, including alcohol, suggests that the evidence is poor at best with very few studies available for analysis.

However, one trial demonstrated effectiveness of motivational interviewing in increasing abstinence from alcohol in this population.

Cognitive behavioural therapy also appears to be effective in treating those with comorbid psychoses. For example, integrating motivational interviewing, cognitive behavioural therapy and family intervention with routine psychiatric care has been shown to produce greater benefits for people with comorbid schizophrenia and substance use disorders than routine psychiatric care alone. Typical benefits have included better general functioning, a reduction in positive symptoms, and an increase in the percentage of days abstinent from alcohol or drugs.

Integrating the psychosocial treatment for the mental disorder with the psychosocial treatment for alcohol use disorder may be beneficial. Relapse prevention strategies should consider triggers for both alcohol use and mental disorders.

Specific motivational interviewing, contingency management and specialist dual diagnosis residential programs are reported as possibly effective in Marel et al (2016).

	RECOMMENDATION	GRADE OF RECOMMENDATION
21.22	CBT including motivational interviewing appears to be beneficial for people with alcohol use disorder and schizophrenia.	C
21.23	Contingency Management appears to improve alcohol outcomes for people with alcohol use disorder and schizophrenia and may be added to other treatments for psychosis.	C
21.24	Longer term (12 month or more) specialist dual diagnosis residential program (if available) may be associated with increased abstinence and decreased risk of homelessness.	C

Pharmacotherapy should be offered as described in [Chapter 10](#).

Limited evidence shows that among people with schizophrenia, two atypical antipsychotics (risperidone and clozapine) may reduce alcohol misuse, smoking, and possibly some other substance misuse.

Addition of psychosocial support to pharmacological treatment has been shown to be effective in treatment of comorbid psychosis and alcohol use disorders.

Clinicians should recognise the potential for poor medication adherence in people who drink heavily that are prescribed antipsychotic medications. There is the potential for excess sedation if alcohol is consumed that may influence safety of these medications in those with AUD.

	RECOMMENDATION	GRADE OF RECOMMENDATION
21.25	Disulfiram should not be first line pharmacotherapy for people experiencing psychotic and alcohol use disorders.	GPP
21.26	Clozapine appears to be more effective than other antipsychotics in reducing symptoms of psychosis in people with comorbid schizophrenia and alcohol use disorder without significant impact on drinking.	C

BIPOLAR AND RELATED DISORDERS

Pharmacological management of bipolar disorder with atypical antipsychotics (such as quetiapine, olanzapine, risperidone) or lithium has a strong evidence base.

Bipolar disorder and comorbid substance use disorder (including alcohol) may be assisted by integrated group therapy at least for substance use outcomes based on the work of one research group including two randomised controlled trials (RCTs).

A small number of poor quality trials (RCTs & open label trials) in people with comorbid bipolar and substance use disorders support the likely efficacy of atypical antipsychotics (such as quetiapine, olanzapine, risperidone) or lithium in reducing bipolar symptoms with no consistent evidence for an effect of substance use (including alcohol).

	RECOMMENDATION	GRADE OF RECOMMENDATION
21.27	Integrative group therapy for comorbid bipolar and substance use disorder is likely to provide better substance use outcomes than intervention focused on substance use alone for people with this comorbidity.	B
21.28	Atypical antipsychotics (such as quetiapine, olanzapine, risperidone) appear to reduce symptoms of bipolar disorder in people with comorbid bipolar and substance use disorder but there is little evidence of benefit for substance use including alcohol.	C

DEPRESSIVE DISORDERS

The recommendations for the management of comorbid depressive disorder from *National Comorbidity Guidelines* are summarised here. First line management is to provide psychoeducation about depression in the context of alcohol use with information about how to manage symptoms. If symptoms persist, psychological interventions with a strong evidence base in the treatment of depressive disorders such as CBT, behavioural activation, cognitive therapy and interpersonal therapy can be applied. Internet delivered or e-therapy may be a convenient way to access these therapies provided progress is monitored, engagement is maintained, and care is coordinated. Then motivational interviewing and/or contingency management may be integrated to provide additional benefit. Some benefit for a disparate collection of integrated cognitive behavioural therapy programs for comorbid major depression and alcohol use disorders compared to a focus on alcohol alone was found in a recent meta-analysis. The specific cognitive behavioural therapy packages were described such as behavioural activation, cognitive therapy and interpersonal therapy. There is insufficient evidence to recommend so called third wave therapies such as acceptance and commitment therapy, mindfulness based stress reduction, and mindfulness based cognitive therapy, but these may be of use if there is insufficient response to the earlier approaches. Antidepressants are an alternative second line treatment for comorbid alcohol and depressive disorders.

Meta-analyses of randomised controlled trials indicate that antidepressant medication has a modest beneficial effect for comorbid depressive and substance-use disorders. They are not recommended as a stand-alone treatment. Concurrent treatment directly targeting the alcohol use disorder is also indicated. There is reasonably good evidence from a meta-analysis of RCTs that antidepressants are more effective for independent depression (that began before alcohol use disorder or persists through abstinence) than for depression that is experienced only while drinking or in withdrawal.

Antidepressants may help relieve depressive symptoms but have little effect on reducing alcohol consumption, unless accompanied and supported by psychosocial treatment for alcohol-use disorder.

SSRIs reduce depressive symptoms in comorbid major depression and alcohol use disorder; however, research results regarding their effectiveness in reducing alcohol consumption are conflicting. SSRIs should not be used as primary therapy to reduce alcohol consumption in comorbid depression. Tricyclic antidepressants should be used with caution in this population due to high risk of poor treatment adherence, abuse and overdose.

Antidepressants should not be the first line of treatment in patients with comorbid alcohol use disorders, unless there is high level of suicidal ideation, severe depressive symptoms or a history of pre-existing depressive illness. Clinicians should consider potential for poor treatment compliance among people with heavy alcohol use. Psychological treatment options should be used first, integrating approaches that are aimed at reducing alcohol consumption with those targeting depressive symptoms.

If naltrexone is used in people with depression additional monitoring may be needed to identify potential worsening in mood. Similarly, there is potential for a very rare exacerbation of mood in those taking disulfiram. Baclofen may be associated with an increase in depression.

RECOMMENDATION	GRADE OF RECOMMENDATION
21.29	Evidence based psychosocial interventions for depression (CBT, cognitive therapy) can be integrated with motivational interviewing and/ or contingency management for depression. C
21.30	Integrating psychosocial treatment for mood disorders with psychosocial treatment for alcohol- use disorder may be beneficial. D
21.31	Antidepressants (sertraline, nefazodone, imipramine, desipramine, & fluoxetine) are likely to reduce depression in those with comorbid depression that is independent of alcohol use with some small or inconsistent effects on alcohol use. B
21.32	Antidepressants may provide limited benefit for symptoms of depression in those whose depression only occurs during active alcohol use disorder. C
21.33	Antidepressants are not expected to benefit alcohol use and should not be prescribed to reduce alcohol use. C
21.34	When considering the use of tricyclic antidepressants in patients with major depression continuing to misuse substances, the potential benefits should be balanced against the risk of suicide. GPP

ANXIETY DISORDERS AND OBSESSIVE-COMPULSIVE AND RELATED DISORDERS

Anxiety disorders are common comorbidities in people with alcohol use disorder. At risk of repeating earlier advice, it is important to separate symptoms of anxiety that are the short- or long-term effects of alcohol use disorder from anxiety disorders that have their own maintaining processes and require their own treatment. Clinical trials for comorbid alcohol use and anxiety disorders support either a) the recommended interventions for both disorders or b) in rarer instances there is support for a combined or integrated intervention.

Some evidence shows that the specific techniques of cognitive behavioural therapy, such as exposure to feared situations, is well tolerated by people with substance use disorders, does not lead to relapse to drug use, and indeed contributes to reductions in anxiety.

Typical pharmacological treatments for anxiety disorders (agoraphobia, panic disorder, social anxiety disorder, & generalised anxiety disorder) also reduce anxiety when they co-occur with alcohol use disorders but typically have not impact on alcohol consumption.

Selective serotonin reuptake inhibitors (SSRIs) reduce symptoms of anxiety in patients with comorbid anxiety and alcohol use disorder. They are indicated for treatment of obsessive-compulsive disorder (OCD) and panic disorder in these patients. However, little good quality evidence supports their capacity to reduce alcohol intake in the longer-term in patients with comorbid anxiety disorders.

Benzodiazepines are effective anxiolytics and are used in treatment of acute alcohol withdrawal but should not be used beyond this indication. They are not recommended in treatment of comorbid anxiety due to high risk of dependence and a potential synergistic interaction with alcohol.

We found no clinical trials of pharmacotherapy for comorbid obsessive-compulsive and alcohol use disorder. Thus any recommendation is based upon evidence from people without comorbidity. SSRIs are recommended for the first line treatment of OCD alone or in combination with psychological therapies.

Combining pharmacological and psychosocial interventions may be beneficial, particularly when psychosocial interventions for alcohol use disorders are integrated with those for anxiety.

	RECOMMENDATION	GRADE OF RECOMMENDATION
21.35	Cognitive behavioural therapy, behaviour therapy, cognitive therapy, and interpersonal therapy should be considered for treatment of people with comorbid mental and alcohol use disorders because of their demonstrated effectiveness in non-comorbid cases.	B
21.36	SSRIs may reduce the symptoms of anxiety in people with comorbid anxiety and alcohol use disorder without impacting on alcohol use.	C
21.37	Benzodiazepines are not recommended for treatment of comorbid anxiety in people with alcohol-use disorders due to high risk of dependence and a potential synergistic interaction with alcohol.	GPP

TRAUMA- AND STRESSOR-RELATED DISORDERS

The majority of people presenting to drug and alcohol services are likely to have experienced some traumatic events in their lives. Many will have ongoing problems from those experiences. Combat exposure, physical and/or sexual assault, life-threatening accidents, and natural disasters place a person at risk of alcohol use and post-traumatic stress disorder. As an intervention to organise care - we could find no direct evidence about *trauma informed care* in drug and alcohol settings but evidence from other settings suggest that it is likely to be beneficial.

Recommendations for the management of comorbid trauma and post-traumatic stress disorder from the 2013 *Australian guidelines for the treatment of adults with acute stress disorder and posttraumatic stress disorder* (Australian Centre for Posttraumatic Mental Health (ACPMH), 2013), and the *National Comorbidity Guidelines* are summarised here and are supported by a high quality Cochrane review. There is clear evidence that intervention should be individual and not group based and that trauma focused approaches lead to better outcomes than those without a trauma focus. However as there are relatively few health professionals trained to provide trauma focused psychotherapies, there is a need for significant training and clinical supervision to provide and support workforce capacity.

Australian PTSD clinical practice guidelines recommend that pharmacotherapies be added to trauma focused CBT if there is not sufficient benefit from CBT alone (Australian Centre for Posttraumatic Mental Health (ACPMH), 2013).

A systematic review of 18 studies of benzodiazepines for PTSD found worse substance use outcomes with the use of benzodiazepines. From Marel et al's (2016) review the antidepressants sertraline, desipramine and paroxetine as well as naltrexone and disulfiram have been successfully trialled for comorbid PTSD and substance use disorders. There was insufficient evidence to make any recommendation about the use of the anticonvulsants topiramate and gabapentin for comorbid PTSD and alcohol use disorder.

	RECOMMENDATION	GRADE OF RECOMMENDATION
21.38	Individual integrated/concurrent trauma focused therapy (including prolonged exposure) is recommended for people with alcohol use disorder and comorbid PTSD.	B
21.39	In the context of PTSD and substance use disorders, the trauma-focussed component of PTSD treatment should not commence until the person has demonstrated a capacity to manage distress without recourse to substance use and to attend sessions without being drug or alcohol affected.	GPP
21.40	In the context of PTSD and substance use disorders, where the decision is made to treat substance use disorders first, clinicians should be aware that PTSD symptoms may worsen due to acute substance withdrawal or loss of substance use as a coping mechanism. Treatment should include information on PTSD and strategies to deal with PTSD symptoms as the person controls their substance use.	GPP

	RECOMMENDATION	GRADE OF RECOMMENDATION
21.41	Benzodiazepines are not recommended for treatment of comorbid PTSD and alcohol-use disorders as they may lead to poorer substance use outcomes.	B
21.42	The antidepressants sertraline, desipramine and paroxetine as well as naltrexone and disulfiram may be beneficial for comorbid PTSD and substance use disorders.	B

FEEDING AND EATING DISORDERS

Feeding and eating disorders including anorexia nervosa, bulimia nervosa, and binge eating disorder frequently co-occur in people with alcohol use disorders. There is a dearth of direct evidence, so the optimal approach is to use the recommended interventions for the separate disorders.

SLEEP-WAKE DISORDERS

Sleep disturbance is common in people with alcohol use disorders and may resolve with abstinence or significant reductions in use. Symptomatic management may be required and if problems persist after 6 weeks to 3 months of abstinence or significantly reduced consumption, they may require more careful assessment and treatment. Evidence is limited to a small number of studies on insomnia. Psychological interventions (CBT for Insomnia CBT-I) appear to show a greater benefit over control compared to the pharmacotherapies that have been tested in improving sleep and are recommended as the first line of treatment.

Care should be taken that pharmacotherapy targeting alcohol use disorders such as naltrexone does not have the unintended consequence of worsening insomnia. Gabapentin, quetiapine, trazodone (not available in Australia) and other agents have been trialled in small studies with inconsistent results and further research is required. There is little evidence that treating sleep disorders pharmacologically improves alcohol related outcomes.

	RECOMMENDATION	GRADE OF RECOMMENDATION
21.43	Sleep hygiene and psychoeducation about sleep are recommended as the first line intervention for insomnia that lasts beyond withdrawal.	GPP
21.44	Behavioural interventions including CBT-I and progressive muscle relaxation are recommended as second line interventions for insomnia.	GPP

DISRUPTIVE, IMPULSE CONTROL, AND CONDUCT DISORDERS

Frustration, anger, and aggressive behaviour are common problems for people seeking help for an alcohol use disorder. These are often the effect of alcohol, related to the impact of an alcohol use disorder, or may even be a feature of a depressive disorder. It may be useful to consider diagnoses of disruptive, impulse control, and conduct disorders. However, there is little or no direct evidence upon which to base guidelines for comorbidity and the best evidence comes from literature on single disorders.

PERSONALITY DISORDERS

Antisocial and borderline personality disorder are common presentations to alcohol and drug services. Two systematic reviews have identified Dialectical Behaviour Therapy for Substance Abusers (sic DBT-S), Dual Focused Schema Therapy (DFST) and Dynamic Deconstructive Psychotherapy as effective in reducing symptoms of borderline personality disorder in people with substance use disorders. Because of the training needs and the complexity of delivering treatment Lee et al (2015) recommend DBT-S over the alternatives.

There is very little direct clinical trial evidence to inform choice of pharmacotherapy. One trial found that naltrexone and disulfiram had similar effects in people with a comorbid diagnosis of either anti-social personality disorder or borderline personality disorder compared to those with alcohol use disorder alone.

	RECOMMENDATION	GRADE OF RECOMMENDATION
21.45	Dialectical Behaviour Therapy (DBT-S) should be provided to people with comorbid borderline personality and alcohol use disorder.	B



CHAPTER 22 **COMORBIDITIES: MEDICAL
COMPLICATIONS OF ALCOHOL USE
DISORDERS**

Authors | Paul Clark & Belaynew Taye

This chapter provides the guidelines for assessment, treatment, and prevention of physical comorbidity in patients with alcohol use disorders.



COMORBIDITIES: MEDICAL COMPLICATIONS OF ALCOHOL USE DISORDERS

THE BURDEN OF MEDICAL COMPLICATIONS OF ALCOHOL USE DISORDERS

Globally, alcohol use accounts for a higher proportion of deaths in men than in women. In Australia, alcohol use contributed to the burden of 30 other diseases and injuries including 8 types of cancer and chronic liver disease. In general, younger peoples' burden of alcohol-related illness and death come predominantly from an accident (e.g., from road traffic accidents and falls) or self-inflicted injury (e.g., suicide or attempted suicide), while in older Australians added morbidity and mortality from alcohol are attributed primarily from chronic conditions such as liver cirrhosis and cancer.

Alcohol use disorder (AUD) is associated with more than 60 physical comorbidities and in general the risk of alcohol-related comorbidity increases in a dose-response manner. Some of the medical comorbidities are:

TABLE 22.1: Short term and long-term effects of alcohol use

SHORT TERM HEALTH EFFECTS OF AUDS

- Accidents
- Intentional and unintentional injuries
- Poisonings

CHRONIC MEDICAL COMORBIDITIES:

- Cardiovascular diseases (e.g., hypertension, cardiac dysrhythmias, and alcohol-related cardiomyopathy)
- Gastrointestinal disorders (e.g., alcohol-related hepatitis, liver cirrhosis, pancreatitis, and gastrointestinal bleeding)

- Musculoskeletal disorders such as osteoporosis
- Neurologic disorders including Wernicke-Korsakoff's syndrome, cerebellar degeneration, alcohol-related brain injury, myopathy, and peripheral neuropathy)
- Infections (e.g., community acquired pneumomonia, tuberculosis (TB), sexually transmitted infections, HIV/AIDS)
- Nutritional disorders (e.g., thiamine deficiency)
- Metabolic disorders (e.g., hypoglycaemia and diabetes mellitus)
- Endocrine deficiencies (e.g., reduced fertility, hypogonadism, osteoporosis)
- Cutaneous problems (e.g., porphyria, psoriasis, eczema)
- Cancers including liver cancer, mouth, larynx, pharynx, oesophagus, bowel, breast, skin cancer

DO HEALTH BENEFITS FROM ALCOHOL USE EXIST?

No level of alcohol use is currently known to have health benefits. The suggestion of alcohol's potential for a cardiovascular protective effect from low doses of alcohol (so-called "J curve") comes from studies that suffered from methodological biases. Most recent studies of large populations, including meta-analyses, that addressed abstainer bias found that alcohol has no health benefits and increasing intake of alcohol is associated with shorter life expectancy. The suggestion of health benefit contributes to a cognitive bias that validates continued alcohol use for persons with AUDs. This negatively impacts public health efforts to reduce the harms of alcohol use at the societal level. In the treatment of AUDs, it is, therefore, relevant to address the health benefit myths, social context of AUD and health risks.

RECOMMENDATION	GRADE OF RECOMMENDATION
22.1	It is recommended to advise patients that alcohol use has no beneficial health effects, and there is no clear risk-free threshold for alcohol intake. The safe dose for alcohol intake is dependent on many factors such as underlying liver disease, comorbidities, age and sex.

ASSESSMENT AND MANAGEMENT OF MEDICAL COMPLICATIONS OF ALCOHOL USE

Patients with an AUD may present with medical complications of alcohol misuse as the trigger for change rather than to seek direct help for alcohol problems. For many individuals, concerns about medical complications may be the only motivator to seek help for alcohol dependence, and these factors can be important in keeping patients engaged and committed to abstinence-oriented treatment programs.

Patients with AUD frequently have significant physical comorbidities and require assessment for these comorbidities irrespective of the reason for presentation. Therefore, management of AUD should include screening for major physical health problems, particularly of liver and pancreas, cardiovascular diseases, and cancers. Clinicians involved in the assessment and treatment of AUD should be aware of and familiar with the assessment of important medical comorbidities. Generally, younger people with alcohol problems are more likely to present with an acute injury related to alcohol, while older patients are more likely to present with chronic complications from alcohol.

Pharmacologic interventions for AUD (see [Chapter 10](#)) such as naltrexone and disulfiram can be hazardous in advanced liver disease, and clinicians prescribing such agents should be able to assess for an underlying diagnosis of decompensated alcohol-related liver cirrhosis.

	RECOMMENDATION	GRADE OF RECOMMENDATION
22.2	Comprehensive medical evaluation for physical comorbidities is recommended for patients with AUD, even when the reason for a consultation does not include a medical comorbidity.	B

ALCOHOL USE DISORDERS IN TRAUMA AND INJURIES

AUD-related accidental and non-accidental injuries contribute to a significant proportion of emergency department attendances. Nearly one in five of all injury deaths and 1.4% of all disability-adjusted life years (DALYs) were attributable to alcohol consumption. Heavier drinking is associated with markedly increased injury risks. Younger people and males are particularly at a higher risk of violence and injuries related to alcohol misuse. AUD-related injury is not limited to people who drink but often involves those who do not consume alcohol. Screening for AUDs and problems using well-validated instruments such as the alcohol use disorders identification test (AUDIT) (see [Chapter 4](#)) should occur at the emergency and primary care level. Effective social policy to reduce harms can reduce alcohol-related morbidity and mortality from injuries.

	RECOMMENDATION	GRADE OF RECOMMENDATION
22.3	Screening and assessment for alcohol use disorders is recommended in hospital emergency departments and primary care using validated tools such as AUDIT.	A

ALCOHOL-ATTRIBUTABLE CARDIOVASCULAR DISEASES

HYPERTENSION

Regular alcohol consumption increases the risk of hypertension in a dose-dependent association. Alcohol reduction improves blood pressure and should be an early suggestion to manage patients with hypertension. Reducing alcohol should be a key strategy for lowering blood pressure in hypertensive patients, to reduce the morbidity and mortality from hypertension.

ALCOHOL-RELATED CARDIOMYOPATHY

Alcohol-related cardiomyopathy accounts for about one-third of all cardiomyopathy. The effects of alcohol differ between individuals, however, there is a dose and duration-dependent effect on left ventricular mass and diastolic dysfunction and for women, a reduced left ventricular ejection fraction.

CARDIAC DYSRHYTHMIAS

Harmful use of alcohol is associated with the development of cardiac arrhythmia including in persons with normal cardiac function. Atrial fibrillation (AF) is the most common of the dysrhythmias seen in alcohol use and can affect those with structurally normal hearts. Dysrhythmias can also be a manifestation of alcohol cardiomyopathy. Sudden death in alcohol misuse (SUDAM) has recently been characterised in a case series, and alcohol may be an unrecognised contributing aetiology, probably secondary to associated QT interval prolongation.

ASSESSMENT AND MANAGEMENT OF ALCOHOL-RELATED CARDIOVASCULAR DISORDERS

Primary care and frontline critical care workers should have a high index of suspicion for underlying alcohol problems as a cause for cardiovascular complications such as cardiomyopathy and arrhythmias, even when patients present with other health conditions. Physicians treating persons with AUD where cardiovascular diseases are suspected should consider abstinence from alcohol as part of an intervention to treat these diseases and prevent further complications.

22.4 A high index of suspicion for cardiovascular diseases such as dysrhythmia is indicated in persons with AUD, even without clinical sign and symptoms of cardiovascular diseases. An abstinence-focused treatment plan for alcohol use disorders is recommended for patients with alcohol use disorders to prevent the complication of cardiovascular diseases and improve clinical outcomes.

B

ALCOHOL-RELATED NEUROLOGICAL DISORDERS

Alcohol-related cognitive decline may result in a dementia-like illness and occur with injury. It may be unrecognized due to its multi-factorial nature, often contributed or confounded by head and brain trauma, frontal lobe impairment, cerebellar atrophy, hepatic encephalopathy, Wernicke's and other nutritional deficiencies and seizures.

Frontal lobe injury is a major site of neurologic injury from alcohol. The frontal lobe has a major role of moderating affective drive and impairment can result in disinhibition and impulsiveness, key targets for cognitive-focused psychological interventions to prevent relapse.

Apart from acute alcohol intoxication-related injuries (through gamma-aminobutyric acid (GABA) and glutamate effects), the well-known neurological sequelae of continued problematic alcohol use are alcohol withdrawal and memory loss. Additionally, in the presence of thiamine deficiency, alcohol use causes diffuse cortical injury and atrophy diagnosed as Wernicke's encephalopathy and Korsakoff's psychosis ([Chapter 9](#)). Alcohol-related brain injury is likely underestimated as it often occurs with variable contributions and is confounded by head and brain trauma, age-related brain disease such as involuntional change and hypertension related small vessel ischaemic disease, hepatic encephalopathy, nutritional deficiencies and seizures.

Alcohol can effect multiple regions of the brain, particularly the cerebellum and frontal lobe, with injury to the later posing a significant barrier to impulse control and cognitive focused psychological interventions to prevent relapse. Neurologic disability may affect mobility and interaction which in turn fosters social isolation that may exacerbate alcohol intake and alcohol-related harms. Even in younger people, alcohol-related neurological injury can impact the ability for self-care and sadly necessitate prolonged nursing home placement, at significant cost to the community.

ALCOHOL-RELATED SEIZURES

Epileptiform seizures are very common in people with AUD. Chronic alcohol misuse increases seizure threshold through adaption in the glutamate, N-methyl-D-aspartate (NMDA) and GABA receptors, leading to alcohol withdrawal-related seizures. Alcohol intake is also associated with seizure risk that increases with dose, independent of withdrawal. This seizure risk is frequently

confounded by structural brain injury, which lowers the seizure threshold independent of alcohol intake or timing.

Epileptiform seizures occur more frequently in patients who consume a large volume of alcohol. Patients with epilepsy should be counselled about the increased risk for seizures related to heavy alcohol consumption.

Chronic alcohol misuse alters seizure thresholds through adaption in the glutamate, N-methyl-D-aspartate (NMDA) and GABA receptors, leading to alcohol withdrawal-related seizures. For individuals withdrawing from alcohol, both primary and secondary prevention of seizures is necessary and is particularly important in patients with a history of seizures or head injury. The risk for new-onset seizure appears to return to baseline after 12 months abstinence. Despite an early interest in their use and effect, multiple studies have shown no or little benefit for seizure prevention from phenytoin administration, and non-benzodiazepine anticonvulsants (NBAC), such as carbamazepine, oxcarbazepine and valproic acid, gabapentin, pregabalin, levetiracetam, topiramate and zonisamide.

ALCOHOL-RELATED NEUROPATHY

AUD can be complicated by a disabling painful peripheral neuropathy (PN), classically occurring in a “glove and stocking” distribution with small-fibre-predominant axonal degeneration of peripheral nerve fibres, sensory nerve fibre involvement and secondary demyelination. Nerve damage leads to unusual sensation in the limbs, reduced mobility, and loss of some bodily functions. Duration of alcohol use and total lifetime dose are associated with more severe PN as well as family history. Thiamine deficiency commonly occurs with chronic alcohol use, and this can also cause a PN indistinguishable from alcohol-related PN, so much so that there is conjecture whether they are in fact the same disease. Irrespective, high dose thiamine in addition to other vitamins is a cornerstone of treatment of the nutritionally deplete individuals with a history of alcohol abuse.

Early recognition of symptoms of neuropathy and seeking treatment can reduce the risk of permanent disability. Assessment involves alcohol use history, neurologic examination, electromyography, and nerve conduction testing. Alcohol-related neuropathy is often associated with nutritional and vitamin deficiency that is comorbid in severe AUD. The treatment of alcohol-related neuropathy involves alcohol abstinence, analgesia, podiatry review, physical therapy, vitamin supplementation, and encouraging a nutritionally balanced diet.

	RECOMMENDATION	GRADE OF RECOMMENDATION
22.5	Alcohol abstinence, analgesia, high dose thiamine and a balanced diet supplemented with thiamine and other B vitamins, is recommended in persons with alcohol-related neuropathy who present with AUD or neurologic symptoms.	B

	RECOMMENDATION	GRADE OF RECOMMENDATION
22.6	Patients with AUD should be screened for risk of seizures and be provided with prevention treatment (in case of withdrawal symptoms).	B

INFECTION RISK AND ALCOHOL USE

AUDs affect the innate and adaptive immune response of the human body. Examples include defective monocyte oxidative burst and impaired phagocytosis which are associated with increased risk of infection and death. Behavioural factors linked with heavy alcohol consumption including injecting drug use, tobacco smoking, risky sexual practice, and forgetting to use condoms have a harmful impact on the risk of acquiring infectious diseases. There is a dose-response causal relationship between alcohol use and risk of communicable disease transmission including community acquired pneumonia, tuberculosis (TB), HIV/AIDS, and other sexually transmitted infections (STIs).

Adherence to TB and HIV therapy is impaired in the setting of AUD. This increases transmission risk and impairs both individual patient outcomes and public health measures to contain important infectious diseases. Focusing on reducing alcohol use is an essential component of infectious disease control strategies to improve immune response to infection, reduce the incidence of alcohol-related STI and also improve treatment adherence. Clinicians treating patients with STIs should screen for AUD, aiming at abstinence to improve treatment adherence, reduce risks and achieve better clinical prognosis.

	RECOMMENDATION	GRADE OF RECOMMENDATION
22.7	Delivering focused education about unprotected sex and risks for HIV/AIDS and other preventable STIs is recommended for persons with alcohol use disorders and/or high-risk alcohol use.	B

NUTRITIONAL, GUT AND LIVER DISEASE RELATED TO ALCOHOL USE DISORDER

VITAMIN DEFICIENCIES

Alcohol use can alter the intake, absorption and utilisation of nutrients. Thiamine deficiency should alert clinicians to the possibility of other vitamin deficiency particularly in the setting of neuropathy. Notably, nicotinic acid, vitamin B2, vitamin B6, vitamin B12, folate or vitamin E) deficiencies lead to clinical problems including anorexia, diarrhoea, skin changes (erythematous

and/or hyperkeratotic dermatitis, cheilosis, glossitis, keratoconjunctivitis and dermatitis), mental changes in pellagra and myelopathy.

PROTEIN-ENERGY MALNUTRITION

Protein-energy malnutrition is commonly seen in those with severe alcohol dependence and particularly with cirrhosis and liver injury. Clinically, protein-energy malnutrition may be present as loss of muscle tissue, and evident symptomatically as weakness and loss of muscle bulk in the upper arm and thigh.

OSTEOPOROSIS

Alcohol use increases the risk of impaired bone mineral density in a dose-dependent manner. In the setting of alcohol-related liver disease, there is a two-fold increase in the risk of bone fracture. For patients with AUD, rigorous assessment for osteoporosis and vitamin D deficiency is suggested to optimise bone health. Consideration of vitamin D supplementation and bisphosphonates for osteoporosis based on assessments and risk.

ASSESSMENT AND MANAGEMENT OF ALCOHOL-RELATED MALNUTRITION

Patients presenting with moderate to severe AUD should undergo a complete nutritional assessment looking for symptoms of undernutrition including weight loss, fatigue, decrease in muscle strength, oedema, gastrointestinal symptoms, and dietary history; physical examination for decreased body mass index, muscle mass, and subcutaneous fat; and laboratory findings. Consider supplemental thiamine and/or a multi-vitamin for all individuals with alcohol misuse. In patients malnutrition may require supplemental feeding of both protein and calories as well as vitamin supplements with a multi-vitamin and thiamine. Patients with loss of muscle mass and frailty may benefit from allied health assessment and intervention with occupational therapy and physiotherapy. Early recognition of malnutrition, sarcopenia and frailty is important to offset its significant social and individual health impacts.

ALCOHOL-RELATED LIVER DISEASES

About two-thirds of alcohol-induced deaths are secondary to advanced liver disease, which can be acute (e.g. alcohol-related hepatitis) or chronic injury leading to alcohol-related cirrhosis and/or portal hypertension and hepatocellular carcinoma. The median age for those dying of alcohol-related liver causes is 60 years for men and 56 years for women.

ALCOHOL-RELATED HEPATITIS

Severe alcohol-related hepatitis (AH) is associated with an at least one-in-twenty 28-day mortality, increasing to about 25% mortality at 3-12 months. Liver failure (either from primary

liver injury or secondary causes such as infection or multi-organ injury), drives short-term mortality in AH, while after six months mortality is affected predominantly by abstinence.

Diagnostically, it is important to exclude other causes of liver disease that may mimic AH such as drug-induced liver injury, flare of hepatitis B or auto-immune hepatitis or decompensated cirrhosis. Prognosis of AH can be estimated using scoring systems such as Maddrey's Discriminant Function and Model for End-stage Liver Disease (MELD) score.

Therapeutic options for AH have been disappointing. Nutritional supplementation has not shown to improve survival in randomised studies. Currently, there is no definitive evidence supporting pharmaco-therapeutic intervention with prednisone, pentoxifylline or other treatments that improve three-month or one-year mortality, and there is a risk of some harm, predominantly from sepsis. Abstinence remains the key predictor of long-term survival in alcohol-related hepatitis.

RECOMMENDATION	GRADE OF RECOMMENDATION
22.8	There is insufficient evidence of survival benefit to recommend routine prednisone use in the treatment of alcohol-related hepatitis. Alcohol abstinence is the only proven intervention that improves survival in these patients. A

A major survival gap remains for patients at risk of early mortality from alcohol-related hepatitis, with a high chance of death before six months of abstinence can be achieved, when liver transplant eligibility has traditionally been a limiting criterion. While the six-month abstinence rule is currently a preclusion to liver transplantation for severe alcohol-related hepatitis in Australia, new data has recently challenged this paradigm with reasonable short-term outcomes in this group of carefully selected patients. A global shift is evident with research in the process towards better identifying and characterising those patients with AH for whom liver transplantation is beneficial, safe and offers long term survival benefit.

ALCOHOL-RELATED CIRRHOSIS

Cirrhosis, which is the end-stage of alcohol-related liver disease, can be classified as compensated or decompensated. A diagnosis of compensated cirrhosis can be difficult to make as while the liver is damaged, it continues to synthesise sufficient proteins and vitamins that are needed to sustain bodily function without symptoms and the liver continues to produce, clear and recycle bilirubin. This is a time of critical opportunity for a patient to stop drinking to prevent progressive liver disease leading to decompensation and death. Unfortunately, most patients with alcohol-related liver cirrhosis are diagnosed in the decompensated stage of cirrhosis, when symptoms become apparent, by which point prognosis is poor.

	RECOMMENDATION	GRADE OF RECOMMENDATION
22.9	In patients with AUD, early recognition of the risk for liver cirrhosis is critical. Patients with cirrhosis should be abstinent from alcohol and should be offered specialist hepatology referral for liver disease management and to an addiction physician for management of AUD.	A

Hepatic decompensation occurs when the liver is no longer able to produce and recycle the proteins for the body's needs - when the albumin is low, prothrombin time prolonged and/or the bilirubin is elevated. Clinical decompensation can also occur predominantly with the symptoms and signs of portal hypertension (PHT) presenting with ascites, encephalopathy or upper gastrointestinal (GI) bleeding from varices.

All patients with liver injury should be asked about alcohol intake. This is a key opportunity to assess for AUD using validated tests such as the alcohol use disorder identification test (AUDIT), even where alternative causes may be thought to be predominant, to assess the possible contribution of alcohol and the risk of progression. Any patient with cirrhosis of any cause should be abstinent from alcohol.

Most medications are metabolised through the liver, and many can be harmful in decompensated liver injury. It is important to be aware of the impact of liver disease on drug metabolism when prescribing new medications.

Patients with liver cirrhosis require a referral to a hepatology or gastroenterology specialist service to optimise management of their liver disease, screen for complications of end-stage liver disease and where appropriate, undergo assessment for liver transplantation when liver deterioration is irreversible and progressive.

	RECOMMENDATION	GRADE OF RECOMMENDATION
22.10	Recognition of advanced liver disease and portal hypertension is recommended to ensure the safe use of pharmaco-therapeutics used to aid alcohol abstinence.	A
22.11	Screening for alcohol-related liver cirrhosis using non-invasive methods such as ultrasonography, transient elastography and/or serological biomarkers is recommended for persons with AUD.	B

	RECOMMENDATION	GRADE OF RECOMMENDATION
22.12	For patients with alcohol-related liver diseases timely specialist referral for optimization of liver and portal hypertensive complications detection and treatment is recommended, irrespective of the absence of decompensation.	A

LIVER TRANSPLANTATION FOR DECOMPENSATED ALCOHOL-RELATED CHRONIC LIVER DISEASE

In Australia, more than one-in-ten adult liver transplants occur for alcohol-related liver disease and this trend is expected to increase. Liver transplantation is an effective treatment for end-stage liver disease from alcohol, with improved 5-year survival outcomes. Six months of alcohol abstinence is currently considered mandatory for patients where alcohol is a significant contributor to liver injury or alcohol use disorder is raised as a concern.

Australian guidelines for liver transplantation use this “six-month rule” to determine both transplant need and the risk for recidivism, however, guidelines extend to potentially exclude patients who are considered to have an “unfavourable” recidivism risk even with six-months abstinence. In general, patients with chronic liver disease who have the Model for End Stage Liver Disease (MELD) score of >14 may be considered for liver transplant assessment. Six months of abstinence allows time to determine a baseline of liver function in the absence of persisting alcohol injury to ensure transplantation is required. In addition to the ability to maintain pre-transplant abstinence, several other features may impact transplant outcomes including social isolation or integration; the candidate’s acceptance of AUD as a comorbid lifelong problem that requires long term treatment; any prior treatment for an AUD including inpatient rehabilitation and other comorbid psychiatric disorders.

Many patients with decompensation recover (“re-compensate”) with abstinence to the point where transplantation is not required or can be deferred. Some patients with AUD will not be able to maintain abstinence. Unfortunately, many patients with decompensated liver disease will continue to deteriorate despite abstinence due to progressive liver disease, portal hypertensive complications or liver cancer.

	RECOMMENDATION	GRADE OF RECOMMENDATION
22.13	Liver transplant referral should be considered for patients with decompensated liver disease (MELD >14) who are abstinent from alcohol for six months.	A

ACUTE ALCOHOL-RELATED PANCREATITIS

Alcohol is implicated in about 25% of acute pancreatitis (AP) cases, exerting a direct toxic effect on pancreatic cells and/or stimulating pancreatic enzyme secretion-induced duct-plugging over time and causing obstruction, and over time leading to atrophy and fibrosis from chronic pancreatitis.

The diagnosis of acute pancreatitis is made on the presence of at least two of three criteria:

- Upper abdominal pain consistent with pancreatitis;
- Positive laboratory markers (serum amylase or lipase >3x upper limit of normal);
- Imaging (CT, MRI, ultrasonography).

In moderate to severe forms, alcohol-related pancreatitis can become complicated by pancreatic necrosis, pseudocyst formation and severe sepsis or bleeding that requiring surgical intervention, prolonged hospitalisation and a high risk of multi-organ failure and mortality.

The use of prophylactic antibiotics in severe alcohol-related pancreatitis may reduce the risk of severe infection that could lead to death, however, the empirical use of antibiotics in all patients is not supported by evidence. Acutely, management relies on close observation of IV fluid balance and cautious replacement and maintaining enteral nutrition when possible. Continued interventions aimed to reduce alcohol consumption significantly decrease the recurrence of alcohol-related pancreatitis.

Chronic pancreatitis (CP) is a relapsing and remitting condition, which can cause significant morbidity and mortality, cause prolonged hospitalisation and disability at significant cost to the community. Most commonly it occurs in the setting of recurrent AP causing acute pain or constant upper abdominal pain. CP is diagnosed radiologically with calcification, ductal dilatation and atrophy on cross sectional imaging such as CT or MRI. People who drink heavily are three times more likely to get chronic pancreatitis compared to those who drink less heavily or those who abstain.

	RECOMMENDATION	GRADE OF RECOMMENDATION
22.15	Alcohol abstinence is indicated to prevent recurrence of acute alcohol-related pancreatitis.	A
22.16	In acute alcohol-related pancreatitis, the empirical use of prophylactic antibiotics is not recommended, with management focused on observing for complications such as pancreatic necrosis, managing fluid balance and maintaining enteral nutrition when possible.	B

ALCOHOL USE AND CANCER RISK

Alcohol is considered by the International Agency for Cancer Research (IARC) as a Group 1 carcinogen, suggesting the strongest level of evidence of linkage as a cause of cancer. AUD contribute to multiple cancers including aero-digestive (oropharynx, larynx, oesophagus), liver, colon, rectum, and breast, and is attributed as a cause in 5.8% of all cancers.

The exact nature and distribution of cancer risk across alcohol intake patterns remain to be further defined for respective cancers. For some cancer types, there appears an increased risk even with light alcohol intake, perhaps most evident in the risk of breast cancer in women and colorectal cancer. There is a clear dose-dependent risk that is most apparent with a higher risk of cancers at higher levels of alcohol intake.

Cessation of drinking should be encouraged in patients with cancers known to have an association, with risk reduction associated with cessation.

	RECOMMENDATION	GRADE OF RECOMMENDATION
22.17	Alcohol abstinence reduces the risk of cancer and improves outcomes after a diagnosis of cancer	A

CHAPTER 23 **RELAPSE PREVENTION,
AFTERCARE, AND LONG-TERM
FOLLOW-UP**

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This chapter provides an overview of relapse prevention and strategies to long-term patient follow-up (aftercare programs), including approaches to working with alcohol-dependent patients who resume heavy alcohol use.



RELAPSE PREVENTION, AFTERCARE, AND LONG-TERM FOLLOW-UP

GOALS OF TREATMENT

Negotiating goals of treatment has already been discussed ([Chapter 4](#)) recognizing that abstinence is not the only option. Indeed, many patients are not ready to engage in treatment that sets a goal of abstinence but may accept the need to reduce drinking. Recent research has confirmed that substantial reductions in drinking may be associated with sustained clinical improvements. The World Health Organisation (WHO) has defined four drinking risk levels (very-high-, high-, moderate-, and low-risk) and clinical benefit has been associated with reduction of at least two risk levels reaching low-risk drinking or moderate-risk for those who were initially drinking at very-high-risk levels.

TABLE 23.1: WHO drinking risk levels:

RISK LEVEL	CONSUMPTION (G/DAY)	
	Male	Female
Very - high-risk	101+	61+
High-risk	61 - 100	41 - 60
Moderate-risk	41 - 60	21 - 40
Low-risk*	0 - 40	0 - 20

*Australian consumption guidelines 2020 recommend 10 drinks (100g) per week to maintain low risk drinking for both males and females and no more than 4 drinks (40g) on any one day.

RELAPSE PREVENTION AND MANAGEMENT

Relapse is a common challenge in alcohol treatment; approximately 60 percent of patients return to problematic drinking within the first month of treatment. In this respect, the difficulty of maintaining sustained reduction of alcohol consumption resembles the challenges of maintaining other kinds of behavioural change.

Various internal and external factors (often those associated with drinking in the past) can contribute to relapse risk:

- persisting desire to drink with the belief that consumption can be controlled;
- positive emotional states (e.g. celebration);
- negative emotional states (such as frustration, anxiety, depression or anger);
- interpersonal conflict (such as relationships with partner, work colleagues, friends); and
- direct or indirect social pressure to drink.

Relapse prevention and management strategies are a set of strategies that aim to help the patient maintain treatment gains (see [Chapter 9](#)). Relapse prevention and management teach patients cognitive and behavioural strategies that help prevent an initial lapse and prevent lapses becoming relapses. These strategies focus on development of coping skills and the self-efficacy to implement these skills, and the attainment of perceived gains for the effort of changing drinking behavior as part of the maintenance of change.

Relapse prevention and management can be assisted through use of medication (including alcohol pharmacotherapies such as naltrexone, acamprosate, disulfiram) for reducing alcohol use or medication for addressing psychological problems, such as anxiety or depression (see [Chapter 10](#)).

RETRAINING COGNITIVE BIASES TO PREVENT RELAPSE

Biased decision making is a feature of alcohol dependence whereby stimuli, such as tastes, smells, visual cues, and physical and social contexts are increasingly paired to the rewarding effects of alcohol via the brain's reward system. This may result in alcohol-related cues triggering automatic tendencies to resume consumption of alcohol. This process occurs, in part, outside of conscious awareness, which could make it difficult to address. These cognitive biases can be dampened through a computerised cognitive training intervention known as cognitive bias modification (CBM). Over a few sessions (typically 4-6), individuals with alcohol dependence practise repeatedly "avoiding" alcohol cues (e.g., pictures of alcoholic beverages) and "approaching" neutral cues (i.e., non-alcohol-related images). There is some evidence from recent Australian and international studies that CBM delivered as part of inpatient alcohol withdrawal treatment may reduce relapse risk. However, there is not yet sufficient evidence to recommend routine use of CBM in alcohol dependence. More research in a variety of clinical contexts with longer-term follow-up is required.

AFTERCARE

Aftercare generally refers to contact with a clinician or service immediately following intensive treatment, and has the goal of maintaining treatment gains and ensuring timely re-engagement if there is the risk of relapse or in the earliest stages of any relapse. The first 3 months of recovery are critical to success and are characterised by a high risk of relapse. Natural history studies reveal the risk of relapse continues for five years and occasionally even longer. Aftercare acknowledges this risk of recurrence of alcohol use and that to maintain change, ongoing monitoring and assistance is required beyond the initial treatment.

Aftercare is an important part of a comprehensive intervention plan. It is particularly suited to people with severe dependence whose likelihood of relapse is greatest. It provides the individual with a network supportive of sobriety, reinforces skills consistent with maintaining abstinence/controlled drinking and improving psychosocial functioning, and helps the individual negotiate unforeseen challenges.

Aftercare can consist of planned telephone or face-to-face contact following a period of treatment to discuss progress and any problems that may have arisen since the end of active treatment. Often primary care workers (such as general practitioners) can provide this function through ongoing follow-up, often as part of review of other health issues. Clinicians may use referral to self-help programs, such as Alcoholics Anonymous and SMART Recovery®, as forms of continuing care or in addition to a structured aftercare program (see [Chapter 11](#)).

Long-term follow up is an important part of a comprehensive treatment plan. Long-term goals include optimising mental and physical health and improving social functioning. It is important to develop an individual management plan to identify particular risks for a patient, identifying a plan to avoid a lapse and a plan to quickly address a lapse so it doesn't become a relapse. This is comparable to escalation planning for other disorders (for example asthma) where early recognition and management can prevent clinical relapse. If the patient continues drinking, a clinical 'harm-reduction' model is appropriate.

	RECOMMENDATION	GRADE OF RECOMMENDATION
23.1	Long-term follow-up of patients following an intensive treatment program is recommended as part of a comprehensive treatment plan, reflecting.	D

SUPPORTING A PERSON DRINKING AT HIGH- OR VERY-HIGH-RISK LEVELS: A HARM REDUCTION APPROACH

Many people will not be receptive or respond to the variety of treatment approaches aimed at reducing their alcohol use and continue to drink at high- or very-high-risk levels, and experience ongoing alcohol-related harms. The principles of clinical harm-reduction interventions recognise that some people will continue to use alcohol and/or other drugs, and aim to work with these

people to nevertheless reduce alcohol-related harms. Priority is placed on immediate and achievable goals, underpinned by values of pragmatism and humanism. Such goals may include achieving a greater number of abstinence days and reducing alcohol consumption on drinking days.

It is critical to undertake a comprehensive risk and medical assessment and design a strategy that reduces identified risks.

Examples of clinical harm-reduction interventions or strategies include:

- Recognising that a person's motivation to change their drinking patterns is not always fixed, and can be influenced by health professionals, families and friends, and changes in circumstances. Building a good therapeutic alliance by attending to their wants and needs can forge the way for subsequent willingness to cut down or stop their drinking. For example, an alcohol-related hospitalisation can act as a 'window of opportunity' to engage the patient in treatment for their alcohol use.
- Maintaining engagement, and an underlying sense of hope for the patient, is important. Strategies to enhance patient engagement may include the clinician attending to barriers posed by the patient's memory or other cognitive disorders, language and/or cultural issues, or physical disabilities. For example, consider using translation services, appointment reminder systems and strategies to enhance medication adherence.
- Continue to encourage a reduction or cessation of alcohol intake, and regular discussion of available interventions to this end, including psychosocial interventions, self-help groups, and pharmacotherapies (such as naltrexone).
- Provide regular feedback to the patient about the effects of their alcohol use upon their lives, and include feedback from biological testing (such as liver function tests) or psychological testing (including cognitive function testing).
- Minimise the harms associated with polydrug use by advising against and offering treatment for other drug problems.
- Monitor prescribed and complementary use of medications to avoid predictable drug-alcohol interactions (for example, alcohol and paracetamol, benzodiazepines, anti-coagulants, non-steroidal anti-inflammatory drugs). Alcohol and drug interactions are discussed in [Chapter 10](#). Identify and respond to problems of poor medication adherence among people who drink heavily.
- Define any specific medical and psychiatric conditions and attend to them systematically with relevant specialist medical teams that communicate regularly. Medical treatment can be of great value in reducing morbidity and mortality associated with continuing alcohol intake. More common medical complications of long-term heavy alcohol use include hypertension, cardiac damage, cerebral atrophy, cerebellar damage, peripheral neuropathy, cirrhosis, coagulopathies, peptic ulcer disease, myopathy and malignancies (breast, liver, oesophagus, colon). These are discussed in [Chapter 4](#) and [Chapter 22](#).
- Offer treatment to minimise the consequences of specific medical complications, such as:
 - thiamine supplements to prevent further central nervous system and peripheral nerve damage
 - antihypertensives for those whose blood pressure fails to normalise on reduction of alcohol consumption

- beta-blocker or variceal banding for portal hypertension
- appropriate nutritional management for advanced liver disease and other organ damage
- falls prevention management for patients with cerebellar damage and/or peripheral neuropathy.
- Engage psychosocial supports (meals-on-wheels, welfare, employment support, community and religious networks, financial or relationship counselling) to reduce family, personal and societal harms.
- Empower family and close friends to reduce availability of alcohol and to encourage further engagement with clinicians able to help with alcohol problems.
- Consider any medico-legal or ethical obligations, including driving assessment, child protection, welfare, guardianship and employment issues for patients in certain trades or professions. These are often complex and specialist advice should be obtained.
- However, limited evidence is available about the outcomes of the harm-reduction oriented interventions described above.
- General practitioners and other health professionals are particularly well placed to maintain long-term contact and promote clinical harm-reduction interventions with people who continue to drink excessively.
- Assertive outreach and involuntary models of care may be considered subject to local availability. A general principle for assertive followup is to utilize the least restrictive approach that is effective and in many cases, regular scheduled followup is an effective approach. These are described in [Chapter 5](#) and earlier in this Chapter.
- Finally, a managed alcohol program (MAP) is under investigation in Australia and has been shown to reduce alcohol related morbidity in Canadian studies. No such programs are currently operating.

	RECOMMENDATION	GRADE OF RECOMMENDATION
23.2	A range of clinical strategies may be used to reduce alcohol-related harm in people who continue to drink heavily and decline treatment. These include attending to medical, psychiatric, social and medico-legal issues, maintaining social supports, and facilitating reduction in alcohol intake.	D