

Chapter 1 Introduction

This review covers the major treatments currently available for treating alcohol use disorders. We have included screening and assessment as a critical component of the treatment process. The evidence on treatment setting, brief and early intervention with problem drinkers is reviewed. The review also covers pharmacotherapies for alcohol dependence, a range of psychosocial interventions, motivational interviewing, cognitive behavioural, behavioural couples and family therapy and self-directed treatment resources such as mutual support groups. Interventions for at-risk groups (indigenous people, pregnant women, older people, adolescents and the cognitively impaired) are discussed. Finally, the impact of psychological and physical comorbidity and polysubstance use upon treatment outcomes is reviewed.

The focus of the review is on evidence that has emerged since the previous literature review, *The Treatment of Alcohol Problems: a Review of the Evidence* (Shand et al. 2003). Developments since that time include a significant volume of research into brief interventions, as well as more clinical trials in the use of acamprosate and naltrexone in relapse prevention.

We have not revisited treatments that were considered previously to have little potential. These included aversive therapy, relaxation training, systematic desensitisation, interpretive therapy and hypnosis. Nor does the review give extensive coverage to interventions for which there is no new evidence.

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.

The review of evidence is accompanied by a comprehensive set of guidelines for the treatment of alcohol use disorders, the *Guidelines for the Treatment of Alcohol Problems* (Haber et al. 2009).

The procedure used to identify research has involved searching relevant databases for published clinical trials, hand searching references from journal articles, searching the web for published guidelines, and contact with major research centres for unpublished research and other relevant guidelines. Databases searched include Medline, the Cochrane Database of Systematic Reviews, ISI Web of Knowledge, PsychInfo and Evidence Based Medicine Reviews. Articles were ranked on their order of strength of evidence according to the table below.

Levels of evidence and strength of recommendations

The preferred level of evidence was a meta-analysis of randomised controlled trials. Overall, the quality of evidence available was high: meta-analyses have been completed for most of the major treatment modalities. Each chapter of the review presents first the evidence from meta-analytic reviews and findings from individual randomised controlled trials, followed by block-randomised and non-randomised controlled trials, and, if relevant, quasi-experimental studies, case-control studies and descriptive studies.

Quality evidence is scant for the effectiveness of treatment of specific sub-groups: indigenous people, adolescents, and those with comorbid mental disorders. For

these areas, we have reviewed clinical trials where available, or otherwise relied on expert opinion.

A randomised controlled trial refers to a study that has at least one treatment group and a control group, usually placebo or no treatment. The study uses outcome measures before and after treatment, and randomly assigns participants to the groups. Some trials, normally those testing medications, also use a double blind where neither the participants nor the researcher know who is receiving which treatment, or a single blind design where neither the participants nor the researcher know who is receiving which treatment. Controlled trials allow the researcher to conclude with a degree of certainty whether or not the treatment being tested is more effective than no treatment. Sample size is important, with larger samples giving greater statistical power to interpret differences in outcomes between groups. In field research with patients, this ideal design is not always possible because of ethical concerns. However it is still possible to draw conclusions from some of these quasi-experimental studies.

Meta-analysis is a statistical technique which combines a number of single trials to increase the overall power and certainty of outcomes, provided the correct statistical analysis is used to control for confounding variables. The conclusions drawn, though, might be more tentative, especially if the samples are heterogeneous.

The strength of recommendation reflects the available evidence and the clinical importance of research. In some circumstances, clinical recommendations are not based upon systematic evidence, but represent a consensus (practical or ethical) approach, indicated as S (standard of care) (See Table 1.1).

Recommendations are included in the Review of Evidence to enable cross-reference with the Guidelines for the Treatment of Alcohol Problems (Haber et al. 2009).

Table 1.1: Categories of evidence and strength of recommendations

Categories of evidence for causal relationships and treatment

- Ia: Evidence obtained from a systematic review or meta-analysis of randomised controlled trials.
- Ib: Evidence obtained from at least one properly designed randomised controlled trial.
- IIa: Evidence obtained from at least one controlled study without randomisation (alternate allocation or some other method)
- IIb: Evidence from at least one other type of quasi-experimental study
- III: Evidence from non-experimental descriptive studies, such as comparative studies, correlation studies and case-control studies
- IV Evidence from expert committee reports or opinions and/or clinical experience of respected authorities

Categories of evidence for observational relationships

- I: Evidence from large representative population samples
- II: Evidence from small, well-designed but not necessarily representative samples
- III: Evidence from non-representative surveys
- III: Evidence from expert committee reports or opinions and/or clinical experience of respected authorities

Strength of recommendation

- A Directly based on category I evidence
- B Directly based on category II evidence or extrapolated recommendation from category I
- C Directly based on category III evidence or extrapolated recommendation from category I or II
- D Directly based on category IV evidence or extrapolated recommendation from category I, II, or III evidence
- S Standard of care

Source: Shekelle et al. 1999; Lingford-Hughes et al. 2004.

Note: This table is also included in the Chapter 1 Introduction of the Guidelines for the Treatment of Alcohol Problems (Haber et al. 2009).

Recommended drinking limits

The Australian Government NHMRC 2009 Guidelines to Reduce Health Risks from Drinking Alcohol (NHMRC 2009) has taken a population health approach to the subject. 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 over a lifetime; Guideline 2 refers to risk of injury; Guideline 3 is for young people, and Guideline 4 is for women who are pregnant or breastfeeding.

Healthy Adults

Guideline 1: Reducing risk of alcohol-related harm

For healthy men and women, drinking no more than two standard drinks on any day reduces the lifetime risk of harm from alcohol-related disease or injury

Guideline 2: Reducing the risk of injury on a single occasion of drinking

For healthy men and women, drinking no more than four standard drinks on a single occasion reduces the risk of alcohol-related injury arising from that occasion

Minors

Guideline 3: For children and young people under 18 years of age, not drinking is the safest option

- A. Parents and carers should be advised that children under 15 years of age are at the greatest risk of harm from drinking and that for this age group, not drinking is the safest option
- B. For young people aged 15-17 years, the safest option is to delay the initiation of drinking for as long as possible

Pregnancy and breastfeeding

Guideline 4: Maternal alcohol consumption can harm the developing foetus or breastfeeding baby

- A. For women who are pregnant or planning a pregnancy, not drinking is the safest option
- B. For women who are breastfeeding, not drinking is the safest option

References

Haber, P, Lintzeris N, Proude E et al. 2009, Guidelines for the Treatment of Alcohol Problems. Canberra: Australian Government Department of Health and Aged Care.

Lingford-Hughes, AR, S Welch and DJ Nutt 2004, Evidence-Based Guidelines for the Pharmacological Management of Substance Misuse, Addiction and Comorbidity: Recommendations from the British Association for Psychopharmacology. *J Psychopharmacol* 18(3): 293-335.

NHMRC 2009, *Australian Guidelines to reduce Health Risks from Drinking Alcohol*, National Health & Medical Research Council and Commonwealth of Australia.

Shand, F, Gates J, Fawcett J et al. 2003, The Treatment of Alcohol Problems: a review of the evidence. Canberra: Australian Government Department of Health and Ageing.

Shekelle, PG, Woolf SH, Eccles M et al. 1999, Clinical guidelines: developing guidelines. *BMJ* 318(7183): 593-596.