

Problem Alcohol Use and Its Treatment: A Briefing Paper

Phil Harris

24th Jan 2008

Contents:

Executive Summary	3
Introduction	4
ICD-10: Alcohol Dependence Syndrome	5
ICD-10: Diagnosis	6
Hazardous, Harmful and Dependent Drinking	7
Social Consequences of Use	8
Physical Complications	8
Mental Health	9
Treatment Challenges	9
Models of Care for Alcohol Misuse	10
Screening	11
Treatment: Overview	13
Alcohol and the Life Course	14
Social Capital and Outcomes	14
Treatment: Common Factors	15
Outcome Rating & Session Rating Scales	15
Treatment: Efficacy of Specific Modalities	16
Treatment as Usual	18
Controlled Drinking	20
Detoxification	20
Sensitising Agents	21
Anti-Craving Drugs	21
Combined Therapies	22
Recommendations	23
Appendix	
Integrated Treatment Pathway Model	26
Sample of AUDIT Screening Tool	27
References	28

Executive Summary

Alcohol problems can occur on a very broad spectrum of both physical and \ or social dimensions.

The World Health Organisation's alcohol dependence syndrome is the most effective diagnostic criteria for the identification of the medical vs. social aspects of alcohol related problems.

Models of Care for Alcohol Misuse recommends that commissioners purchase tiers of intensifying treatment interventions with clearly identified treatment pathways.

Treatment should be organised in a stepped care arrangement, where clients are offered the least intrusive treatment options first, before reviewing the necessity for more comprehensive treatment.

The World Health Organisation's *Alcohol Use Disorder Identification Test (AUDIT)* is the most effective screening tool for the identification of alcohol problems and its severity. This tool also provides clear guidance on recommended intensity of intervention. It should be the central mechanism for clinical indications in a stepped care system.

Treatment is effective in addressing alcohol problems within given caveats.

The most consistent finding in research is that the alliance between the practitioner and the client is central in determining treatment outcomes. Specific monitoring of alliance factors should be conducted using outcome rating scales and session rating scales in the delivery of all treatment.

Brief interventions can be effective but only for lower order drinking problems.

More comprehensive treatment is necessary for moderate to severe drinking problems.

Reviews of effective alcohol treatment suggests that modalities that specifically target client need, contain a significant behavioural component and increase the social networks of the client are more effective than generic counselling models.

Family involvement can enhance treatment outcomes.

Medications are effective and necessary in the detoxification of severe dependence.

Medications for relapse prevention can increase treatment gains but only when prescribed as part of a structured care package.

Problem Alcohol Use and Its Treatment: A Briefing Paper

By Phil Harris

Introduction

Historically, alcoholism has defied clear definition in both clinical and treatment settings. This situation has been confused by the many approaches that have attempted to treat the disorder. All too often alcoholism has been over simplified by different approaches that have defined the disorder by pre-existing notions of it. Hence, the twelve-step movement has characterised alcoholism as a progressive disease, psychology has overstated coping deficits and psychotherapy has dwelt on the early child-parent relationship. Alcoholism has been amenable to such discrepant analysis because it is both multi-faceted and divergent in appearance. Whilst it may be supposed to represent one identifiable condition, the symptoms of alcoholism retain a plasticity that is difficult to discern. This led early theorists to segment alcoholism into separate types or sub-species. An early pioneer of this model was Jellinek (1960) whose five-part typology attempted to define distinct drinking patterns in problem users. Whilst it was not exhaustive in its definitions, this model became quickly established.

<p>Alpha Alcoholism: Drinking for psychological reasons without tolerance.</p> <p>Beta Alcoholism: Excessive drinking which has led to tissue damage but no dependence on alcohol</p> <p>Gamma Alcoholism: Excessive drinking with tolerance and withdrawal, variable alcohol intake and characterised by a loss of control of consumption.</p> <p>Delta Alcoholism: Excessive drinking where there is evidence of tolerance and withdrawal accompanied by steady alcohol use. These clients may find more difficulty in abstaining rather than exercising control of what they drink</p> <p>Epsilon Alcoholism: Bout or binge drinking.</p>

Jellinek's Drinking Typology

Jellinek's typology has been influential and misunderstood. It has been commonly interpreted as defining 'fixed' drinking patterns when they in fact represent shifts in drinking styles. For example, even highly social excluded Gamma 'street' drinkers who are supposed to maintain high levels of continuous drinking often experience protracted periods of abstinence (Schuckit et al 1997). This occurs during prison stays or when in dry hostels. Likewise, heavy bout Epsilon drinkers often report case histories of continuous drinking. Alternatively, the Gamma alcoholic may now only experience loss of control of their consumption once they had lost their job and marriage that had previously constrained their consumption, and limited it to Delta alcoholism (an inability to abstain).

Here we see that the environment plays a significant role in determining individual drinking patterns. These can also be influenced by wider cultural factors. Reviewing alcohol consumption across cultures we see huge variance in the rates of alcoholism as well as the patterns of behaviour exhibited by those under the influence. For example, alcoholism rates are low in Mediterranean cultures where it is perceived as foodstuff, whilst high in Western Protestant societies where alcohol consumption signals time out from normal behaviour (MacAndrew and Edgerton 1969). This highlights that drinking patterns are highly susceptible to the environments and cultures in which alcohol is consumed, making definitive analysis of drinking patterns difficult. In recent years further attempts have been made to segment alcoholism using genetics?, family or age of onset (Cloniger 1987; Schukit 1985; Johnson et al 1998). However, the overall conclusion has remained that identifying sub-groups of alcoholism has proved beyond the reach of our current statistical analysis and we are unable to detect sub-species of alcoholism in clinical reality (Peter 1997).

These problems are compounded by the fact that alcoholism is not clearly understood in the wider population, leading to confusion of what is problem drinking and scope for denial of the existence of problems. Despite this, it is essential that practitioners have a clear understanding of this disorder. This is for several reasons. Firstly, it may assist the client and their families to have a clear and mutual understanding of the disorder they are attempting to address. Secondly, at risk populations, who may be unaware of the risks and \ or damage they are experiencing through their alcohol use, need to be identified and offered appropriate care before problems escalate further. Thirdly, treatment itself demands a clear understanding of the disorder in order to establish realistic therapeutic goals. And finally, only when the severity of the disorder is understood can it clearly demarcate the roles of involved professionals in order to provide the most appropriate level and kind of intervention and maximise treatment gains. Therefore, a clear diagnostic framework is essential to allow treatment to discriminate between the specific issues presented by each client and respond with treatment that is sensitive to their need.

Alcohol Dependence Syndrome

In light of the problems in diagnosing a unitary condition of alcoholism, Edwards and Gross (1976) suggested that clinical observation revealed a cluster of repeat symptoms in heavy drinkers. This led them to formulate a diagnosis of alcoholism as a 'syndrome'. A syndrome describes a repeat clustering of symptoms that appear sufficiently regularly to make a diagnosis but where not all elements need to appear. They also suggest that alcoholism could be understood in degrees of severity rather than as an absolute and that alcohol dependence could be separated from alcohol related problems. Subsequent research has supported this thesis, providing construct validity to these insights. (See Stockwell et al 1979; 1983; Chick 1980; Meehan et al 1985; Feingold and Rounsaville 1995; Heather et al 1983; Rankin et al 1982; Grant et al 1992; Cottler 1993). The overwhelming conclusion from an extensive body of independent research is that the syndrome is a clinical

reality. The dependence syndrome is characterised by the following elements:

Key Elements	Descriptors
Narrowing of Repertoire	The problem individual begins to drink the same regardless of social context. With advanced drinking, consumption follows a strict daily timetable.
Saliency of Drinking	Priority is given to maintaining alcohol intake over time, relationships and finances.
Increased Tolerance	The drinker can tolerate and still operate under the influence of large doses of alcohol that would incapacitate an ordinary drinker. Will also develop cross-tolerance to other depressant drugs.
Withdrawal Symptoms	The client will experience severe and multiple symptoms, usually on waking that include tremor, nausea sweating and mood disturbance.
Relief or Avoidance of Withdrawal Symptoms by Further Drinking	Drinking occurs earlier in the day as dependence progresses to alleviate the onset of withdrawal. Usually the periods of abstinence are limited to 3-4 hours. Drinking is triggered by mild withdrawal in anticipation of worsening symptoms. Often early drinking becomes ritualised with the client knowing the exact amount to consume to avoid rather than alleviate withdrawal.
Subjective awareness of compulsion to drink	May be ruminating on alcohol during a period of withdrawal as well as loss of control over drinking once initiated.
Reinstatement after abstinence.	A rapid return to pre-treatment drinking levels after relapse.

The Alcohol Dependence Syndrome

The elements of the dependence syndrome should be proportional to each other. For example, someone experiencing profound withdrawal symptoms is most probably using alcohol to relieve those symptoms and increase the saliency of their drinking over other activities. The severity of the dependence at its later stages is also important in diagnosis. These include progressively severe withdrawal symptoms that may have plateaued over the years; increasing experience of sickness from drinking that is so severe that it prevents anymore consumption; and gross and incapacitating intoxication. This occurs when abnormally high tolerance collapses leading to chronic inebriation, even after a few drinks are consumed. Brain damage may be its primary cause.

Diagnosis

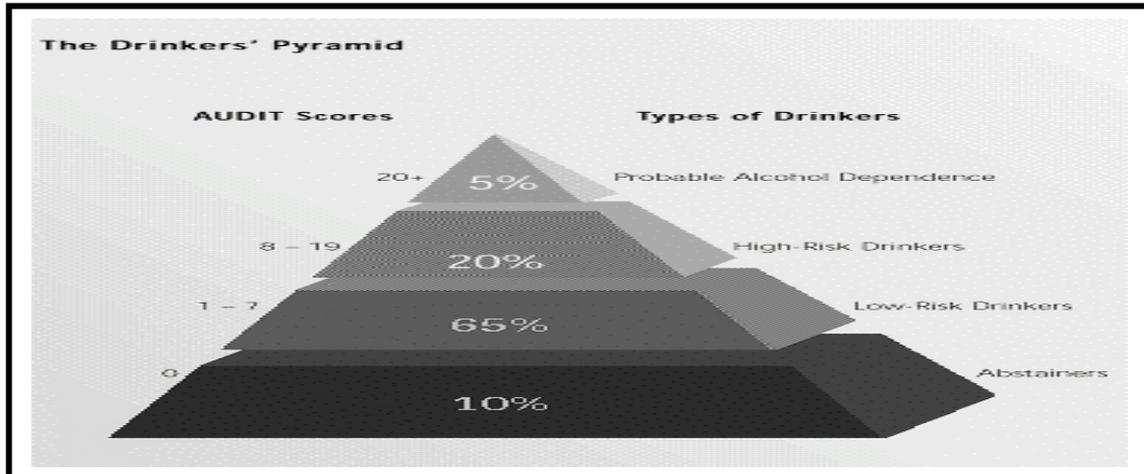
It is important to note that the syndrome does not in itself describe the origins of alcoholism. Instead it isolates the symptoms that present as core facets of the current problem. Also, not all elements are as strong predictors as others. Narrowing of repertoire, subjective change and reinstatement have proved more problematic in validating (Cottler et al 1995). The most robust indicators

of dependence are the presence of tolerance and withdrawal and therefore should be present for a diagnosis to be made. The American DSM – IVr does permit a diagnosis to be made without the presence of tolerance and withdrawal, but this means that the diagnosis captures heavy drinkers as well as those with alcohol dependence and does not discriminate well between the two (Schuckit et al 1998; Hasin 2000). As Edwards et al (2003) state ‘...but for clinical purposes it is probably best to restrict the diagnosis of alcohol dependence to patients who have experienced withdrawal symptoms to at least some degree.’ Therefore, it is advised that practitioners operate using the guidance of the World Health Organisation’s Alcohol Dependence Syndrome in diagnosis.

Hazardous, Harmful and Dependent Drinking

Based on this understanding of alcoholism occurring on a spectrum, the World Health Organisation has classified sub-groups of problem drinking on this continuum. *Hazardous drinking* describes a pattern of substance use that increases the risk of harmful consequences for the user. However, some would limit the consequence to physical or mental health (as in harmful use). Some would also include social consequences. *Hazardous use* refers to patterns of use that are of public health significance despite the absence of any current disorder in the individual user. *Harmful drinking* is a pattern of drinking that is already causing damage to health. The damage can be physical or mental. *Moderate dependency* describes drinking which is characterised by increased tolerance and withdrawal and impaired control over drinking. This may have elicited concern from others. However, the individual has not reached the stage of drinking to abolish or alleviate profound withdrawal symptoms. *Severe dependence* describes chronic alcohol use often accompanied by long standing problems. Experiencing abnormal tolerance and profound withdrawal symptoms that may include delirium tremens and fits. This sub-population also engages in relief drinking to negate negative symptoms.

In terms of prevalence, Drummond et al (2005) found that in a study of drinking rates in England, 32% of men and 15% of women were hazardous or harmful drinkers, equating to 7.1 million people in the wider population. Approximately 21% of men and 9% of women were binge drinkers. Whilst 6% of men and 2% of women met the criteria for dependence. This gives a 3.6 per cent rate of alcohol dependence in the whole population, compared to 0.8% for drug addiction. Prevalence rates of drinking vary considerably from region to region, but the spread of dependence remains relatively stable within these populations. This can be characterised as a pyramid of intensifying problems. The minority of this population will experience severe dependence, with lower order problems being spread over larger populations.



The Drinkers Pyramid

Social Consequences of Use

The development of the alcohol dependence syndrome does not account for all problems in drinking. As we have seen, the model attempts to isolate those specific aspects of alcoholism that relate to medical complications that result from drinking. Alongside physical dependence run the social consequences of drinking. Social consequences primarily refer to the inability to sustain social commitments. These consequences may be primary such as domestic violence, loss of driving licences, etc. Or secondary, for example, with a history of alcohol problems interfering with job applications. These can again range from trivial incidents such as accident under the influence or failure to do what was expected of you as a result of a hangover, to major problems such as domestic violence, marital break down, homelessness and unemployment (Clark and Hilton 1991; Edwards et al 1994). Heavy alcohol consumption can interfere with the individual's ability to sustain their commitments in the areas of family, employment, peer relationships and wider civic and legal responsibilities. Ultimately, the severity of social impairment can cause a break down in all relationships, leading to social exclusion and immersion in drinking sub-cultures that sustain high use. As physical dependence increases, the more likely it is to impede social function. But it is possible for people to experience profound physical dependence without social complications, and social complications without physical dependence.

Physical Complications

The toxicity of alcohol on the human body also presents unique problems for this treatment group. In the UK approximately 15-30% of males and 8-15% of female hospital admissions in urban areas have alcohol-related problems (Chick 1994). Whilst physical complications are high in heavy drinkers, early intervention can be effective in curtailing these problems. Thresholds for harmful drinking are dependent on the specific disorders and even in low level drinking it is difficult to ascertain a specific 'safe' level of consumption. At high dependence level drinking, every tissue in the body may be adversely affected, with over 150 medical problems identified as relating to alcohol

consumption. Specifically, heavy drinking is related to chronic gastritis, gastrointestinal bleeding, pancreatitis and polyneuropathy. Whilst binge drinking may make the individual more susceptible to injury under the influence and brain damage from consumption. Anyone presenting with the following medical problems should be screened for alcohol problems.

Hepatitis \ cirrhosis
Hypertension
Stroke
Cardiac arrhythmia's \ arterial fibrillation
Cardiomyopathy
Pneumonia and tuberculosis
Myopathy
Osteoporosis
Seizures
Wernicke-Korsakoff syndrome
Accidents
Resistant psoriasis and eczema
Anaemia \ MCV

Presenting health problems associated with alcohol.

Mental Health

At the same time as chronic health problems, the effects of alcohol can profoundly affect mental illness and cause severe cognitive impairment. This can occur as a direct result of high alcohol consumption damaging the brain as in the case of Korsakoff's psychosis or alcohol dementia. The general effects of alcohol on memory can be profound, curtailing the effectiveness of talking cures. Even in moderate problem drinkers, memory function can be significantly impeded. In one study, drinking subjects showed little recall of self-help leaflets that they had recently read (cf. Sobell and Sobell 1993). Drinking is also more likely to be concurrent with mental health disorders such as depression, anxiety, personality disorder and schizophrenia that can be exacerbated by further consumption. The incidence of mental illness and alcohol problems is very high. The ECA study (Helzer and Pryzbeck 1988) found that 37% of individuals in the general population with alcohol problems experienced a concurrent mental illness. The most common were anxiety (19%), antisocial personality disorder (14%), affective disorders (13%) and schizophrenia (4%).

Treatment Challenges

Alcoholism presents a significant challenge to treatment provision. Whilst it is typically understood as a unitary condition, it is a composite of biological dependence with a broad range of severity and social issues with a wide bandwidth of interpersonal consequences. This is strongly associated with related physical health problems and a greater incidence of dual diagnosis that compound these problems further. The central concern of any treatment provision must be how it addresses a disorder with such sweeping scope. This is particularly important as the lack of clarity over what actually constitutes a drink problem is not clear in the wider public and many problems

go undetected (or unchallenged) for long periods of time. As individuals tend to normalise their own drinking as typical, it often befalls others to challenge their consumption. Research has demonstrated that medical authorities are least likely to serve ultimatums to change on problem drinkers until severe physical dependence is reached (Marlow et al 2001). Those who experience social complications from alcohol are more likely to be coerced into treatment but may fail to recognise their problems as they do not resemble the stereotypical alcoholic as depicted in the media.

Models of Care for Alcohol Misuse

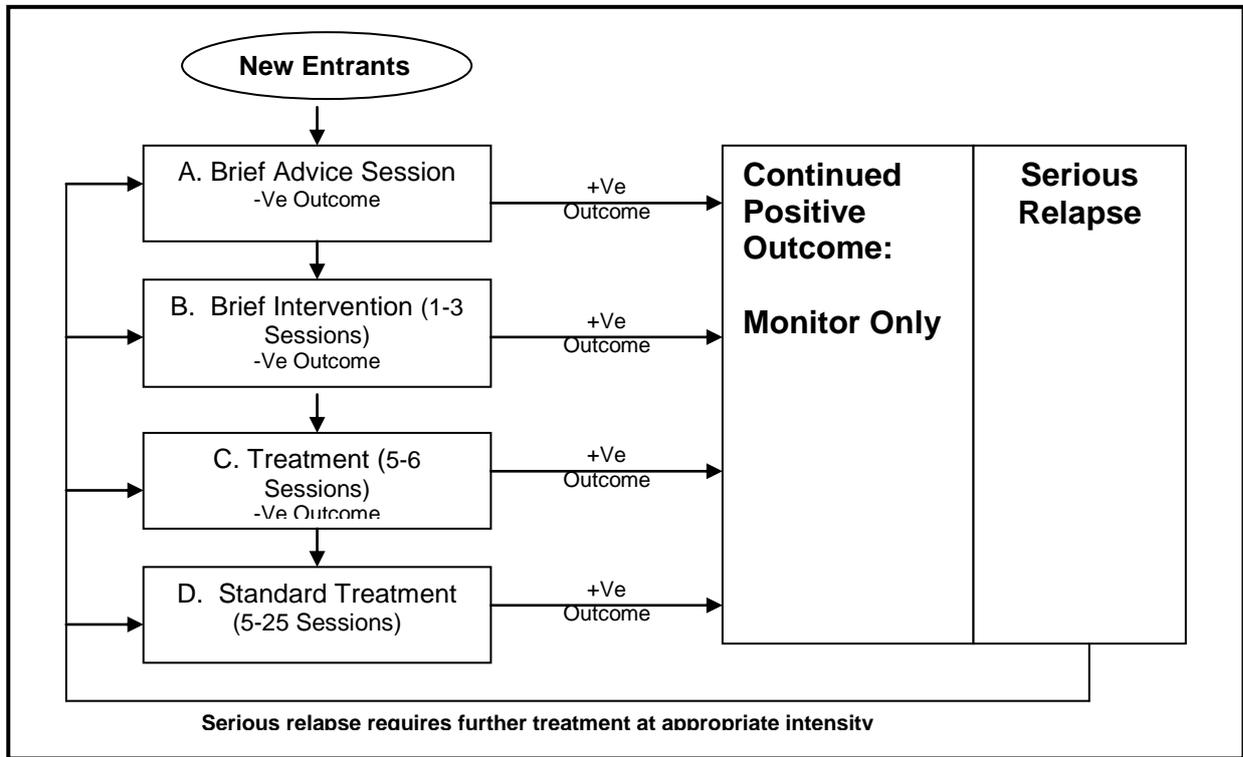
In treatment planning it becomes imperative to discriminate between dependence and social consequence, identify degrees of severity and match clients with varying support needs to appropriate treatment. This aim is stated in the Models of Care for Alcohol Misusers (MoCAM) (Department of Health \ National Treatment Agency, 2006). This policy recommends commissioning four tiers of services for alcohol users with identified treatment pathways, which parallel the tiers for drug services. However it differs from drug treatment in emphasising the need for greater ‘targeted and opportunistic screening’ of alcohol users and specifies more flexible movement between these tiers of services.

Services	Definition
Tier One Services	Identification of hazardous, harmful and dependent drinking. Information and simple brief advice. Referral to tier 2 services.
Tier Two Services	Provide open access support, specific alcohol information, brief interventions and referral to tier three services.
Tier Three Services	Community-based specialist alcohol services providing care-planned alcohol treatment. Referral to tier four services
Tier Four Services	Includes the provision of specialist residential services and inpatient detoxification.

Tiers of Alcohol Services (MoCAM DH \ NTA 2006)

MoCAM recognises the breadth of alcohol related problems by adopting the classifications of the World Health Organisation (hazardous, harmful, slight and severe dependence). It recommends that within this spectrum of need, clients should be offered an appropriate intensity of service. For example, hazardous drinkers without complex needs should be offered a brief intervention of simple advice in tier one services. Harmful drinkers should receive a brief intervention such as motivational enhancement of 1-3 sessions at tier two. But as the severity of the individuals problems increase, then the level of treatment should increase accordingly. Treatment should span simple advice at one end of the treatment pole to care co-ordination at the other. Commissioners should purchase a range of structured and increasingly intensive treatment options. This should also include a goal hierarchy from controlled drinking to abstinence accordingly. This is referred too as *stepped care*. ‘The stepped care model suggests that new entrants for such treatment should be assessed, and initially receive the least intensive or least prolonged intervention considered suitable for the level of need and complexity identified. If response to such a limited initial intervention is inadequate, a

more intensive or prolonged package of care may be needed.' (DH \ NTA 2006 p.28).



Stepped Care (Adapted from Sobell & Sobell 1993).

The treatment journey should always commence with the least intrusive approach and then, depending on treatment outcome, be intensified accordingly. This is not a blind process, for example, where a complex need is identified at the outset the client should always be referred to the higher level of service. Trials of the stepped care approach in South Wales, STEPWISE, (Drummond et al 2003) treated 1,748 males and found that it was a practical model to implement in primary care settings. It also allows for limited resources to be targeted at the most vulnerable. This places the screening of problem users and the exact calibration of their problems to the fore, in order to refer to the appropriate level of service. This necessitates the use of a clear screening mechanism which can be deployed at treatment entry in tier one \ tier two services that can offer clear indication of the most appropriate treatment pathway for the client.

Screening

In 1982 the World Health Organisation asked an expert committee to identify a brief screening tool for the alcohol dependence syndrome. The principle method was to identify questions that best separate low and heavy drinkers based on the ICD-10 alcohol syndrome. The result was a 10 item questionnaire, The Alcohol Use Disorder Identification Test (AUDIT), which was developed specifically as a screening tool to allow practitioners to identify undiagnosed people who would benefit from reducing or ceasing alcohol

consumption. The AUDIT assessment asks ten questions, three on alcohol consumption, four on alcohol-related problems and three on dependence symptoms.

Domains	Question	Item Content
Hazardous Alcohol Use	1	Frequency of drinking
	2	Typical Quantity
	3	Frequency of heavy drinking
Dependence	4	Impaired control over drinking
	5	Increased salience of drinking
	6	Morning Drinking
Harmful use	7	Guilt after drinking
	8	Blackouts
	9	Alcohol Related Injuries
	10	Others concerned about drinking

AUDIT Sub-Scales

Developed over two decades, the AUDIT has proven a reliable measurement of dependence and problem drinking across gender (Saunders, et al 1993), age (Saunders et al 1993) and culture (Allen et al 1997). The AUDIT tool can be used in a wide variety of primary care and professional settings making it ideal for tier one services. This allows it to align with current Government recommendations to ‘target’ risk groups rather than ‘universally screen’ all individuals as stated in the Alcohol Harm Reduction Strategy for England (Prime Ministers Strategy Unit 2004, p.42).

General hospital patients with disorders associated with alcohol abuse
 People suffering from depression or feeling suicidal, Psychiatric patients
 Patients attending causality or emergency appointments
 Patients attending general practice
 The homeless
 Prisoners and offenders
 Those cited with legal offences related to alcohol (drink drivers, public drunkenness)
 Adolescents
 Middle aged men
 Migrant workers
 Occupational groups including business execs, entertainers, sex workers, publicans

Currently treated opiate users should also be screened.

Targeted Sub-Groups

The scoring of AUDIT is simple, derived from adding the score from each answer (1-4) into a global total. This global score indicates the current range of risk that the client is in. Further detail can be elucidated from reviewing the scores indicated in the sub-scales to determine levels of clinical dependence besides social consequences.

Risk Level	Intervention	AUDIT Score *
Zone I	Alcohol Education	0-7
Zone II (Hazardous Drinking)	Simple Structured Advice Session	8-15
Zone III	Simple advice plus extended	16-19

Harmful Drinking \ Slight Dependence)	(1-3 sessions) brief intervention and monitoring
Zone IV (Slight Dependence \ Dependence)	Referral to specialist for 20-40 diagnostic evaluation and treatment and comprehensive treatment
*The AUDIT cut off score may vary slightly depending on the country's drinking patterns, the alcohol content of standard drinks, and the nature of the screening programme. Clinical judgement should be exercised where the patients score is not consistent with other evidence, or if the patient has prior experience of alcohol dependence. It may also be instructive to view the patients responses to individual questions dealing with dependence symptoms (Question 4, 5, 6) and alcohol related problems (Questions 9, 10). Provide the next highest level of intervention to patients who score 2 or more on questions 4, 5, 6, or 4 on question 10.	

AUDIT Scoring and Indicated Treatment

AUDIT has consistently demonstrated superiority to other well established screening tools such as MAST and CAGE. It was better at distinguishing harmful and hazardous drinking than MAST (Bohn et al 1995). It was better at identifying problems in a random hospital sample than CAGE (Wittchen 1994). It was equal to MAST and CAGE at identifying dependent drinkers, but better at detecting lower order drinking problems (Piccinelli et al 1997). Similar sensitivities were found with drug using populations (Skipsey et al 1997). AUDIT outperformed CAGE in screening drink drivers (Hays et al 1995) and has been found effective in identifying problems in psychiatric populations (Hulse et al 2000; Murray 1977; WHO 1980). Not only does the AUDIT offer a simple and flexible screening tool but it also provides a clear indication of the appropriate level of treatment necessary according to the clients scores. This means that the AUDIT is an ideal screening tool for assessment within a stepped care framework. In the NTA review of effectiveness for alcohol problems, Raistrick et al (2006) state 'The AUDIT should be considered as the screening instrument of first choice in community settings' (p. 60).

Treatment: Overview

Treatment outcomes are difficult to establish. Individual motivation, levels of social capital, current stage in their drinking career and the inter-play of other extra-therapeutic factors such as remission all play a significant role in promoting change or relapse. Percentages of those achieving long-term abstinence post treatment vary considerably from 64% (Sundby 1967) to 13% (Bratfos 1974). Research suggests that over the course of one-year follow up there will be considerable variation from abstinence to problem drinking post-treatment that eventually stabilises over time (Taylor 1994). Only after two-three years post treatment can it be identified which sub-groups will sustain abstinence. In Vailliant's (1995) longitudinal study, people that maintained sobriety for 5 years were unlikely to relapse. Edwards et al (2003) suggested a hypothetical model of long term treatment outcomes based on current statistical probabilities. If a hypothetical sample of 100 problem drinkers were all treated at the same age of 45, at twenty years follow up 40% would have died, 30% would still be drinking problematically and 30% would be in stable abstinence or drinking moderately.

Alcohol Across the Life Course

The problems associated with alcohol use shift across the life course and in some cases even abate without treatment. We can identify clear peaks in consumption with problems often occurring at late adolescence (early onset), early thirties and again at retirement ages (Filmore 1987). The high consumption of alcohol in the twenties, which is often characterised by social complications (Cahalan and Room 1974) tends to fade away in middle age (Room 1977). Longitudinal research does show that those who do continue to drink are more likely to experience problems in this period. There are, however, exceptions. Those who experience severe drinking problems in their early twenties are more likely to moderate use following a 'scare.' This suggests that problem drinking is amenable to early intervention. In general terms, it appears that people with more severe problems are more likely to choose and sustain abstinence whilst those who move in and out of problem use fare less well (Vaillant 1983).

How and when alcohol interrupts the life course of the individual is important in the prognosis of treatment. In contrast to substance misuse, alcohol problems are more likely to occur across a wider age range than drug misuse, which tends to occur in the adolescence to early thirties. Problem drinkers are likely to maintain high levels of drinking for longer periods before seeking help. This is because of the cultural acceptability of drinking. As a result, drug users report far higher social pressures and stresses to change, and experience social exclusion through use far more rapidly than problem drinkers (Klingemann 1994). The social pressures and crises that often precipitate treatment entry in drinkers can be mitigated by a socially permissive attitude to high alcohol use.

Social Capital and Outcomes

The later onset of alcoholism also means that individuals may have more social capital than substance misusers. This broader life history of establishing an adult role and experience of managing social responsibilities means that they have more skills and opportunities in their immediate environment that can be capitalised on in the recovery process. However, huge variance in age of onset, severity of dependence and social networks means that problem alcohol users present with a far broader spectrum of potential need. This can range from the married wife who drinks at home in isolation to the homeless street drinker. Exhaustive reviews by Gibbs and Flanagan (1977) and Baekeland et al (1975) identified that the early age of onset, low social class, social alienation, broken marriage, frequent arrests and sociopathology all indicated poor treatment response. Social stability and marriage (Bromet et al 1977) do correlate with successful outcomes and signal the importance of involving wider support networks in treatment. In contrast, the severity of alcoholism or volume of consumption before treatment does not correlate with treatment outcome except in extreme cases of physical dependence (Costello 1975; Orford and Edwards 1977). The same findings were also indicated in the \$36 million dollar study of alcohol, Project

MATCH. Critically, this suggests that improvements in social function and improved social networks should be a prominent feature of treatment.

Treatment: Common Factors

Assessing the superiority of one counselling intervention over another in the treatment of any disorder is problematic. This is because the treatment style in itself is not the only variable that contributes to outcome. Any treatment intervention must be 'transmitted' through the practitioner who is working with the client. These relationship factors in treatment are profound and can account for 9-40% variance in outcome regardless of the severity of the client's problems (Crits-Christophe and Mintz 1991). The strength of this alliance has consistently been the best predictor of treatment outcome (Barbor and Del Boca 2003). In Project MATCH, of the 64 different variables reviewed in one of the most statistically powerful research studies ever conducted, found that the alliance was the biggest predictor of treatment outcome, even at 10 year follow-up (See Miller et al 2004). In light of the significance of alliance factors, the NTA review of effectiveness of alcohol treatment demands that specific attention is directed towards the creation and management of an effective working alliance as central to treatment outcomes (See Raistock et al 2006). It is important to recognise that the alliance is not describing *any* working relationship. In random control trials practitioners are working to gold standard levels of intervention with treatment manuals with high fidelity to their design.

Outcome Rating & Session Rating Scales

Therefore, before examining the evidence base of specific interventions, it is recommended that specific attention is directed at the alliance factors. The development of the Outcome Rating Scales (ORS) and Session Rating Scales (SRS) is an important development in this area (See Miller et al 2005). The Outcome Rating Scale is a visual analogue scale where the client rates their current satisfaction in the domains of their own well-being, the close relationship, their social responsibilities and general well being at the start of every session. These scores are expected to follow improvements in line with normative performances. At the end of each session, the client rates the working alliance between themselves and their worker on the Session Rating Scale. This is based on Bordin's (1979) research which defined the critical functions of the alliance that include bond, agreement on goals, negotiation of therapeutic task and how well the session went generally. Where the client scores the worker below the cut off point, they examine what was missing from the session and adjustments are made.

As such, the ORS \ SRS provides two functions. Firstly, it provides a simple milestone measure of client progress as an outcome tool that is normalised against hundreds of other services working with a similar client group. Therefore the ORS does not simply generate outcomes but does so in comparison to the outcomes of similar agencies, offering a clearer evaluation of performance. Secondly, the tool provides a further dimension. Unlike other milestone tools, the ORS does not simply measure progress. The

combination of the SRS allows the worker to respond to the client's progress or deterioration in order to *improve* the outcomes. Where poor scores are identified, the alliance can be examined in order to provide a better fit for the client. Where the client makes improvements, adjustments can be made to capitalise on what works for them. Miller et al (2005) found that the introduction of ORS \ SRS feedback tools doubled the size of the outcomes of clinical services and significantly reduced drop-out rates. Those with mental health issues were better off than 70 per cent of the waiting list, whilst those with drug and alcohol problems were better off than 86 per cent of the waiting list. Clients who failed to obtain feedback on the alliance were twice as likely to drop out and three to four times more likely to have a null or negative outcome. It is important to stress that this was achieved without specific training in anything other than the assessment tool itself. This is important as supervision and training is often ineffective in addressing the in vivo problems of client work. It is therefore recommended that ORS \ SRS tools be used as standard practice to monitor the quality of the alliance, regardless of the treatment modality being deployed.

Treatment: Efficacy of Specific Modalities

The focus of alcohol treatment has shifted over the years. This has recognised the broader spread of presenting issues of alcohol problems as opposed to an overt focus on the severely dependent 'alcoholic.' This has given rise to brief interventions and separation between dependent drinkers versus problem drinkers (See Sobell and Sobell 1993). It has also shifted the focus from abstinence as a principle goal to include moderate or controlled drinking as a legitimate option for those at the lower end of the drinking pyramid. Recently, several large reviews have attempted to summarise treatment outcomes, which include not only reductions in drinking but also improvements in social and emotional functioning. These studies square findings from gold standard individual studies to identify broader themes across large populations.

Holder et al (1991) review was based upon 200 control studies of 33 treatment modalities. Therapies were assigned a score for each demonstration of a successful outcome and negative score for poor outcomes or inability for the intervention to demonstrate greater gains than its comparison. A weighting procedure was used to eliminate simple negation. Therapies based on their evidential weighting were then classified as follows.

Treatments with Good Evidence	Treatment that are promising but not proven	Treatment with no evidence of effectiveness
<ul style="list-style-type: none"> - Social Skills Training - Self-Control Training - Brief Motivational Interviewing - Behavioural Marital Therapy - Community Reinforcement Approach - Stress Management Training 	<ul style="list-style-type: none"> - Covert Sensitisation - Behavioural Contracting - Dsiulfirum (Antabuse) - Antidepressant Medication - Nonbehavioural Marital Therapy - Cognitive Therapy - Hypnosis - Lithium 	<ul style="list-style-type: none"> - Chemical or Electrical Aversion Therapy - Education film \ lectures - Anxiolytic Medication - General Alcoholism Counselling - Residential Milieu therapy.

Evidence of Treatment Effectiveness for Alcohol Problems (Holder et al 1991).

Miller et al (2003) have been engaged in periodic reviews of research on the outcomes demonstrated by different treatment approaches in addressing alcohol problems. These findings are compiled in a large table-*mesa grande*-where 381 trials of treatment are summarised. Again, this is restricted to drawing upon random controlled trials only. Outcome scores were established by rating whether these studies demonstrated strong positive evidence (+2), positive evidence (+1), negative evidence (-1) or strong negative evidence (-2). Each study was also weighted on 11 measures for the methodological soundness of the trial. These scores were then multiplied to give a final score that reflects the effectiveness of the treatment and the robustness of the research that underpins it. This gave a **culminate evidence score** (CES) for each of the 48 modalities tested, which are then ranked in order of effectiveness. This does give a bias to modalities which have been researched methodically; therefore the percentage of 'Excellent' studies is also included.

The *mesa grande* accords with Holder et al (1991) in many aspects, specifically in high ratings for brief interventions, motivational enhancement therapies, cognitive-behavioural control approaches and community reinforcement approach. Research has consistently demonstrated that brief interventions can be highly effective for problem drinkers. For example, Edwards et al (1977) randomly assigned hospitalised problem drinkers to either one session of advice where they were told they would be offered no more support or to a six month treatment programme. Outcomes were the same for both groups. However, independent studies have persistently converged on the conclusion that brief interventions such as motivational interviewing are effective *for lower order drinking problems*. As the severity of dependence and social exclusion increase, brief interventions are significantly less effective. Brief interventions are only appropriate for clients with no or mild levels of dependence (See Moyer et al 2002; Bien et al 1993; Emmen et al 2004; Slattery et al 2003). Brief interventions should be considered viable for opportunistic interventions at tier one. At tier two they could provide a time limited approach (1-3 sessions) where it may assist with lower level alcohol problems or support more comprehensive treatment planning for those entering tier three.

As the range of alcohol problems intensify to moderate and severe, more comprehensive treatment is needed. What is also striking in both meta-studies is that for more complex problems, interventions that increase the social integration of the individual show superior outcomes. This accords with research that identified that family stability, social support and improved marital happiness are all important factors in avoiding relapse. This provides yet more support to the idea of including the wider social network of the client in the treatment process. Surprisingly, relapse prevention scores low in the *mesa grande*. This may reflect that relapse prevention approaches that focus on triggers to use are not sufficient in themselves to arrest the wider social break down that may occur with problem drinkers. A more complete package

of relapse prevention is needed that includes social skills training and behavioural control mechanisms as described by Marlatt and Gordon (1985).

Treatment Modality	Rank	CES	%Excellent
Brief Intervention	1	390	53
Motivational Enhancement	2	189	50
GABA Agonist (Acamprosate)	3	116	20
Community Reinforcement	4.5	110	71
Self-Change Manual (Bibliotherapy)	4.5	110	53
Opiate Antagonist (Naltrexone)	6	100	0
Behavioural Self-Control Training	7	85	52
Behaviour Contracting	8	64	0
Social Skills Training	9	57	25
Marital Therapy-Behavioural	10	44	44
Aversion Therapy, Nausea	11	36	17
Case Management	12	33	0
Cognitive Therapy	13	21	10
Aversion Therapy, Covert Sensitisation	14.5	18	0
Aversion therapy, Apnoeic	14.5	18	0
Family Therapy	16	15	0
Acupuncture	17	14	0
Client Centred-Counselling	18	5	13
Aversion Therapy, Electrical	19	-1	17
Exercise	20	-3	0
Stress Management	21	-4	0
Antidipsotropic-Disulfiram	22	-6	26
Antidepressant-SSRI	23	-16	0
Problem Solving	24	-26	50
Lithium	25	-32	29
Marital Therapy, Non-Behavioural	26	-33	25
Group Process Psychotherapy	27	-34	0
Functional Analysis	28	-36	33
Relapse Prevention	29	-38	31
Self-Monitoring	30	-39	50
Hypnosis	31	-41	0
Psychedelic Medication	32	-44	0
Antidipsotropic- Calcium Carbimide	33	-52	0
Attention Placebo	34	-59	33
Serotonin Agonist	35	-68	0
Treatment as Usual	36	-78	13
Twelve Step Facilitation	37	-82	83
Alcoholic Anonymous	38	-94	29
Anxiolytic Medication	39	-98	0
Milieu Therapy	40	-102	29
Antidipsotropic-Metronidazole	41	-103	0
Antidepressant-Non SSRI	42	-104	0
Video Tape Self-Confrontation	43	-108	13
Relaxation Training	44	-152	17
Confrontation Counselling	45	-183	33
Psychotherapy	46	-207	21
General Alcoholism Counselling	47	-284	22
Education (tapes, lectures or films.)	48	-443	15

Summary of the Mesa Grande (Miller et al 2003)

Treatment as Usual

These two large-scale treatment reviews also highlight a wider problem. Generic treatment approaches do not score highly in either study. This is because very generalised treatment interventions do not appear to address specific aspects of the client use (Pattison 1976; Barbor et al 2003; Emrick and Hanson 1983). Clients may make reductions in consumption but experience no improvement in social function. Alternatively they might

improve social function with no reduction in use. This may be why psychotherapy, generic counselling models, treatment as usual and even personal centred counselling score relatively or very low. In the UK, these broader interventions represent 'treatment as usual.' Alcohol agencies tend to employ long term one-to-one counselling drawn from an eclectic mix of humanistic counselling. These models prioritise personal insight and emotional expression. This can neglect the development of specific behavioural skills necessary to master change as well as the necessity for the client to reconstruct their wider social relationships that have been compromised by their consumption.

This raises important considerations. Firstly, the broad range of alcohol problems means that these counselling interventions may be too intensive for lower order problems but not intensive enough for the higher end of problem use. Secondly, the NTA effectiveness review of alcohol treatment recommended that goal setting must occur across a wide range of *specific* domains including health, psychological adjustment, vocation, interpersonal relationships, poly-use and risk taking behaviour. Therefore, a goal-planning sheet such as the Life Satisfaction Audit (Harris 2007) or similar tool should be used in treatment planning to ensure treatment is targeted efficiently. Thirdly, treatment works well where it shows high fidelity to the original treatment modality (Luborsky and O'Brien 1985). In generic, eclectic or integrated counselling approaches this fidelity maybe easily lost. This suggests that only identified treatment interventions should be employed based on the best available evidence to ensure that care is consistently delivered amongst clients across different workers. These interventions should be specific and detailed in the goal setting and tasks of the intervention and call upon validated assessment instruments only. Other research has found that the ability to draw upon other treatment styles can be useful in outcomes. However, this is better from an established baseline of skills that ensure consistency across a team. Workers should be able to make treatment decisions against a set standard.

These considerations are important because social policy currently demands that counsellors are suitably qualified and BACP accredited. However, there is little evidence to support the idea that qualifications lead to better outcomes. As we have seen, the alliance between worker and client is the most powerful predictor. A problem arises as the demands of the substance misuse field and incumbent policy differs from the value base and curriculum of most counselling courses that tend to teach generic humanistic or eclectic counselling styles. These courses may not cover the specificity of intervention adequately and can create a culture of practice that is often the antithesis of researched-based evidence. This can cause tensions and conflict that lessen the effectiveness of treatment delivered as required. Therefore, it is essential that the practitioners working within these models understand the rationale, treatment aims and evidence to underpin the delivery of these models. Consideration should also be given to the development of manual based approaches that ensure that the focus of agreed treatment interventions is sustained. This will also assist in the

development of a consistent skills base and support the development of organisational change in the delivery of treatment.

Controlled Drinking

The final point of interest from these large reviews is that Behavioural Control Training also demonstrates very good outcomes. This controlled drinking programme has been studied in detail and shows very good outcomes (Miller and Munoz 1982). However, it does demand very specific skills in self-monitoring and intoxication management. Therefore, controlled drinking programmes should be offered within any treatment package, specifically for those with harmful or hazardous drinking. This could also be offered as a bibliotherapy approach whose outcomes can rival that of one-to-one counselling in harmful or hazardous drinkers. Clear protocols and screening should be conducted prior to contracting for behaviour controlled drinking programmes based on the following indicators.

Factors Unfavourable to Controlled Use	Favourable Factors to Controlled Use
Severe dependence	Mild or no signs of dependence
Previous failures at controlled drinking	Recent sustained normal drinking
Strong desire in the drinker for abstinence	Strong preference for normal drinking
Commitment to AA	Evidence of self-control in other areas of life
Poor self control in other areas of life	No mental illness or concurrent drug abuse.
Mental illness or drug misuse	Mild or no physical complications from drinking
Severe organ damage from alcohol abuse	Supportive family and friends
Heavy drinking family and social group	Drinking does not affect work performance
Heavy drinking in work settings	Non-violent when drinking.
Social isolation	
Employment jeopardised by drinking problems	
Violence when drinking.	

Factors relevant to controlled drinking (Edwards et al 2003).

Detoxification

The use of medications in the treatment of alcohol is an important facet in the overall treatment plan. However, it does differ from that of treatment for opiates, where maintaining doses are seen as inappropriate. In their comprehensive NTA review Raistock et al (2006) state ‘It is expected that most treatment will be rooted in a psychosocial intervention, which may or may not be enhanced by a pharmacotherapy.’ (p.127) This is because most treatment gains are made through addressing the psychosocial factors that sustain use. Within this, medications have a clear role in three key areas that include detoxification, relapse prevention and nutrition.

Detoxification is a process of achieving an alcohol free state under clinical supervision. Its primary aim is to reduce the withdrawal symptoms experienced by physically dependent individuals. This is particularly focussed on managing three alcohol withdrawal states which include tremor, seizures and delirium. There is strong evidence that multiple detoxifications are associated with poor treatment outcomes (Malcom et al 2000) demanding that the optimum support and aftercare packages should be provided to support

the change attempt and minimise failure. Therefore, detoxification should not be attempted without a structured aftercare plan in place. Drawing upon the wider social network of the individual to enhance treatment gains is imperative. Hospital detoxification should take place where there are high indicators that the client will experience complications such as a history of seizure, Pyrexia, head injury, other illness, Wernicke's or psychiatric problems. For patients not experiencing these problems, home detoxification can be effective. Where medications are indicated, daily doses of 100-200mg chlordiazepoxide (Librium) is considered the most effective treatment. Other members of the benzodiazepine group can be used, as well as chlormethiazole, but Librium has lower dependency potential (Duncan and Taylor 1996). Carbamazepine has been used where there is a history of fitting (Williams and McBride 1998). Medical detoxification is associated with prolonged abnormal brain function that may result in relapse (See Funderburk et al 1978). Clients should transfer into aftercare services as quickly as possible. Post-detoxification may also be a time of heightened depression as individuals confront the destruction of their lives and impact of their behaviour on loved ones and so needs to be carefully monitored.

Sensitising Agents

Medications to assist in relapse prevention should only ever be prescribed as part of a holistic treatment package. One group of drugs for relapse prevention are sensitising agents. These drugs, when taken in combination with alcohol, produce aversive reactions. Disulfiram (Antabuse) is widely prescribed, which inhibits liver enzymes responsible for breaking down acetaldehyde, a principle metabolite of alcohol. Raising the levels of acetaldehyde causes flushing, tachycardia, sweating and vomiting. Individuals drinking in combination will therefore experience a punishing consequence as opposed to the expected positive reinforcing effects of alcohol. Although sensitivity to disulfiram is variable and some people can simply drink through it. Research by Hughes and Cook (1997) found little evidence to support the use of implanted disulfiram, but supervised oral administration as part of a structured treatment programme was found to be effective. This has been an important component of the Community Reinforcement Approach, where concerned others are trained to administer the drug (see Meyers and Smith 1995). Heather (1993) found that unsupervised oral disulfiram delivered only 20% of days alcohol abstinence where as with supervised administration 100% of abstinence days could be achieved. Again, this provides strong evidence to include the wider social network of the individual into their treatment.

Anti-Craving Drugs

Anti-craving drugs are also available. Naltrexone and acamprosate have been found to have a small but positive effect on recovery. Naltrexone is an opiate agonist which blocks the action of alcohol on opioid pathways reducing its euphoria inducing potential. Prescribed in 25-50mg daily doses over a 3-6 month period, it has been found to be effective when prescribed as part of a psychosocial treatment package. Volpicelli et al (1992) found positive results

for naltrexone. In this study, those on naltrexone who did slip in treatment were less likely to continue to drink than those on placebo. Monterosso et al (2001) and O'Malley et al (1992) found similar results, but other studies have found little benefit in its use (Krystal et al 2001). The drug may also cause a wide range of unpleasant side effects, reducing compliance. It is recommended only for patients who are socially stable, have no liver disease and are engaged in a treatment programme. Naltrexone is currently not licensed for alcohol treatment in the UK.

Acamprosate (Camprol) is often described as a GABA agonist, but its mechanism of action is not clear. A relatively safe drug that has little dependency potential, it can be combined with antidepressants without contra-indication. Prescribed between 1998-1332mg (dependent on body weight) the drug may reduce craving potential in clients. Clinical trials suggest it may prevent relapse in alcohol using patients when part of a package of structured psychosocial support (Paille et al 1995). The Sass et al (1996) study found that the effects of the drug could persist for over a year after stopping the medication, but again this has not been confirmed in other studies (Chick et al 2000). The drug does have side effects and so is not suitable for people with renal problems, liver failure or pregnant women.

Combined Therapies

The efficacy of combined psychosocial treatment and prescribed medication was the subject of the large scale Project COMBINE (Anton et al 2006). In this study 1,383 alcohol dependent individuals were randomly assigned to one of eight various treatment conditions. These included naltrexone, acamprosate, naltrexone *plus* acamprosate or placebo. This was delivered with or without a behavioural intervention of either twelve step facilitation, cognitive behavioural therapy or motivational enhancement. Subjects achieved an increase in percentage days abstinence from 23-30% to 59-69%. Naltrexone groups fared the best but there was little difference between the groups, with no evidence of benefit from acamprosate. Relapse was slightly higher in the groups who did not receive medication but this was not statistically significant.

In terms of nutritional supplements, protocols for prescribing are well established. Significant in this is the prescribing of thiamine. Problem drinkers suffer a deficiency due to poor vitamin intake, poor absorption because of gastritis, coupled with a high demand for thiamine as it is involved in the metabolism of alcohol. These deficiencies can lead to Wernicke's which is treatable with high doses of thiamine. Untreated it can lead to the irreversible condition Korsakoff's syndrome. However it should be noted that variations in prescribing can occur across areas and there should be agreed protocol in place to ensure equity of treatment.

Recommendations

The provision of treatment services that meet with the recommendations of the Models of Care for Alcohol Misuse (DH \ NTA 2006) and the conclusions of the treatment effectiveness review of the NTA (Raistrick et al 2006) to ensure best practice. In light of these policy frameworks and the wider literature reviewed in treatment outcomes, the follow key issues are recommended.

Stepped Care

In line with current policy and treatment recommendations, a stepped care approach should be adopted. This should encompass a range of services of increasing intensity with clear treatment pathways existing between the services.

AUDIT Screening Tool

The AUDIT should be adopted as the principle screening tool in order to assess appropriate levels of subsequent intervention. As many problem drinkers will be identified in non-alcohol services, a training programme for wider services and professionals will be necessary. This should include but not be limited to generic primary care staff, probation, social services, drug workers, CARAT teams, occupational therapists and supported housing workers. A rolling programme of training should also include the World Health Organisation guidance on providing brief advice and information as well as how to refer appropriately into alcohol services. Agreements should be established on specific target groups and any presenting medical problems that should automatically trigger screening.

Alliance Factors

Specific attention must be made to the alliance factors in the delivery of all treatment at tier two and above. Staff should use the ORS and SRS as standard and consideration should be given to purchasing the ASSIT computer software. This programme will allow for normalisation of treatment results both within and in comparison to similar agencies. Other outcome measures to be agreed where necessary.

Specified Interventions

Within the stepped care framework, specified interventions should be used. These should specify assessment tools, goals setting protocols and therapeutic tasks. This should include controlled drinking options and linking with services for concerned others. Consideration should be given to preparing materials in manual form and the use of case formulation approaches to ensure high fidelity to the treatment models and consistency of practice across the teams. Treatment intensity should increase in the frequency of service delivery. Each treatment modality must state clear

lengths of treatment and offer appropriate intensity of service in relation to the clients need as determined by AUDIT. A number of recommended models listed below should be considered as first choice interventions. Any alternative models suggested should be equivalent in intensity and be supported by evidence from random controlled trials.

Tier Of MoCAM	Intervention	Treatment Length
Tier One Services	Brief Advice Session base on WHO Guidance.	1 Brief Session
Tier Two Services	Bibliotherapy Motivational Interviewing WHO Brief Intervention Motivational Enhancement	NA 1-3 Sessions 1-3 Sessions 1-4 Sessions
Tier Three Services (In order of intensity)	<i>Controlled Drinking:</i> Problem Drinking Model (Sobell and Sobell) Behavioural Control Therapy (Miller and Munoz) <i>Abstinence:</i> 5 Session Model (Orford) Solution Focussed Therapy Structured Relapse Prevention Community Reinforcement Approach <i>Community Detoxification</i> Stockwell Model <i>Concerned Others:</i> Stress strain Model (Orford and Velleman) CRAFT	5 sessions 10 Sessions 5 sessions 6 sessions 12 sessions 12+session NA 5-8 sessions 12 sessions

An idealised treatment system is outlined representing a range of evidenced based services across the MoCAM stepped care model at the end of this document. This includes treatment pathways and core assessment tools.

Medication: Area Wide Protocols

Medication for alcohol detoxification, relapse prevention and nutrition are well established. Area wide protocol agreements should be drawn up to ensure consistency in prescribing across the region and between services. All clients should have access to the same range of medical support across the region. Clear agreements should be established on prescribing, only within structured care packages.

Network Sessions

Consideration should be given to opening up one-to-one treatment to include the individual’s personal support network where appropriate and where concerned others are willing to support the client in their change process. The role of the network sessions should be governed by clear protocols. Concerned others are to be included as part of the treatment team, as opposed to family therapy. Their role should be to monitor administration of prescribed drugs and client progress, contribute to the assessment process

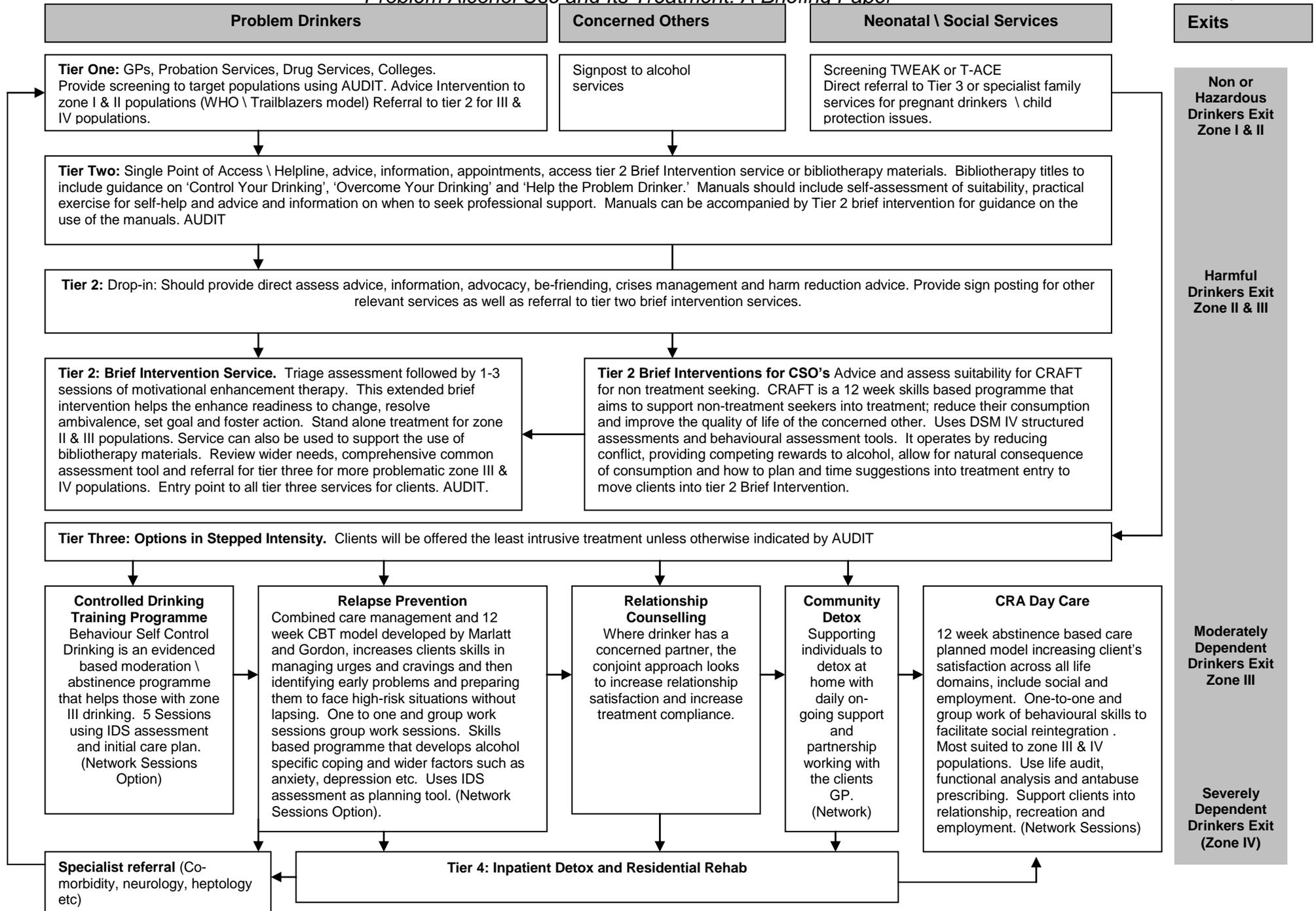
and assist the client to access pro-social support networks. Clear guidance should be drawn based on the findings of Network Therapy and Social Behavioural Network Therapy. This could be provided as part of established treatment regimes or as an alternative and discrete intervention in its own right.

Services for Families

Cross-referenced policy is demanding that services are provided for the wider family affected by problem alcohol use, such as the NTA Commissioning Framework for Concerned Others and the Hidden Harm Agenda. Alongside the network sessions, services should be available for the concerned others of problem drinkers. Brief Interventions of 1-3 sessions should be made available to concerned others for initial care planning. Further structured treatment programmes for concerned others should utilise recognised models. To avoid duplication, any existing family support services should be included in the treatment pathways.

Treatment Pathways to Tier 4 Services

Specialist referral for dual diagnosis, cognitive impairment and physical health checks should be made to tier four services. It is essential that staff at tier two and three have adequate training in order for them to recognise cases with presenting complexity for appropriate referral. Furthermore, consideration must be given to access to inpatient detoxification and residential treatment. Ideally, assessment will be housed in the tier three service. Evidence of demand for tier four services should be included in any service specification. Protocols and eligibility criteria will need to be established for access to community care funding.



Alcohol Use Disorders Identification Test: Interview Version	
<p>Read the questions as written. Record answers carefully. Begin the AUDIT by saying 'Now I am going to ask you some questions about your use of alcoholic beverages this last year.' Explain what is meant by 'alcoholic beverages' using local examples of beer, wine, vodka, etc. Code answers in terms of 'standard drinks'. Place the correct answer number in the box to the right</p>	
<p>1. How often do you have a drink containing alcohol? 0) Never [skip to questions 9-10] 1) Monthly or less 2) 2-4 times a month 3) 2-3 times a week 4) 4 or more times a week</p>	<p>6. How often in the year have you needed a first drink in the morning to get yourself going after a heavy drinking session? 0) Never 1) Less than monthly 2) Monthly 3) Weekly 4) Daily or almost daily</p>
<p>2. How many drinks containing alcohol do you have on a typical day when you are drinking? 0) 1 or 2 1) 3 or 4 2) 5 or 6 3) 7,8, or 9 4) 10 or more</p>	<p>7. How often during the last year have you had a feeling of guilt or remorse after drinking? 0) Never 1) Less than monthly 2) Monthly 3) Weekly 4) Daily or almost daily</p>
<p>3. How often do you have 6 or more drinks on one occasion? 0) Never 1) Less than monthly 2) Monthly 3) Weekly 4) Daily or almost daily</p>	<p>8. How often in the last year have been unable to remember what happened the night before because you had been drinking? 0) Never 1) Less than monthly 2) Monthly 3) Weekly 4) Daily or almost daily</p>
<p>4. How often during the last year have you found that you were not able to stop drinking once you had started? 0) Never 1) Less than monthly 2) Monthly 3) Weekly 4) Daily or almost daily</p>	<p>9. Have you or someone else been injured as a result of your drinking 0) No 2) Yes, but not in the last year 4) Yes, during the last year</p>
<p>5. How often in the last year have you failed to do what was normally expected of you because of drinking? 0) Never 1) Less than monthly 2) Monthly 3) Weekly 4) Daily or almost daily</p>	<p>10. Has a relative or a friend or a doctor or another health worker been concerned about your drinking or suggested you should cut down? 0) No 2) Yes, but not in the last year 4) Yes, during the last year</p>
<p>Total</p>	
<p>World Health Organisation</p>	

References

Allen, J.P. et al (1997) A review of research on the Alcohol Use Disorders Identification Test (AUDIT). *Alcoholism: Clinical and Experimental Research*, 21(4): 613-19

Anton, R.F. et al (2006) Combined pharmacotherapies and behavioural treatments for alcohol dependence. The COMBINE study: a randomised control trial. *JAMA*, 293, 2003-2017.

Baekeland, F.L. et al (1975) Methods for the treatment of chronic alcoholism: A critical appraisal. In R..J. Gibbons et al (eds.) *Research Advances in Alcohol and Drug Problems*, Vol 2, Wiley.

Barbor, T. F and Del Boca, F.K. (Eds) (2003) *Treatment Matching in Alcoholism*, Cambridge University Press.

Barbor, T.F. et al (2003) Treatment effects across multiple dimensions of outcome. In T.F. Barbor and F.K. Del Boca (Eds) *Treatment Matching in Alcoholism*, Cambridge University Press.

Bien, T.H. et al (1993) Brief interventions for alcohol problems: a review. *Addiction*, 88, 315-35

Bohn, M.J. et al (1995) The Alcohol Use Disorder Identification Test: Validation of a screening instrument for use in medical settings. *Journal of Studies on Alcohol*, 56, 423-32.

Bordin, E.S. (1979) The generalizability of the psychoanalytic concept of the working alliance. *Psychotherapy: Theory, Research and Practice*, 16 (3): 252-260.

Bratfos, O. (1974) *The Course of Alcoholism, Drinking, Social Adjustment and Health*. Universtiy Forlaget.

Bromet, E. et al (1977) Posttreatment functioning of alcoholic patients: its relation to Programme Participation. *Journal of Consulting and Clinical Psychology*, 45, 829-842

Cahalan, D. and Room, R. (1974) *Problem Drinking Among American Men*. Rutgers Centre for Alcohol Studies.

Chick, J. (1980) Alcohol dependence: methodological issues in its treatment: reliability of the criteria. *British Journal of Addictions* 75, 175-86

Chick, J. (1994) Alcohol problems in general hospital. In Edwards, G. and Peters, T.J. (Eds) *Alcohol and Alcohol Problems*, *The British Medical Bulletin*, 50, 20010. Churchill-Livingston.

Chick, J. et al (2000) United Kingdom multicentre acamprosate study (UKMAS): a 6 month prospective study of acamprosate versus placebo in preventing relapse after withdrawal from alcohol. *Alcohol and Alcoholism*, 35, 176-87.

Clark, W.B. and Hilton, M.F. (Eds) (1991) *Alcohol in America: Drinking Practices and Problems*. State University of New York Press.

Cloniger, C.R. (1987) Neurogenetic adaptive mechanisms in alcoholism. *Science*, 236, 410-16

Costello, R.M. (1975) *Alcoholism Treatment and Evaluation, II: Collation of Two Year Follow-Up Studies*. *International Journal of Addictions*, 10: 857-867

Cottler, L.B. (1993) Comparing the DSM-III-R and ICD10 substance abuse disorders. *Addictions* 88, 689-96.

Cottler, L. B. et al (1995) Narrowing of the drinking repertoire criterion: should it have been dropped from ICD10? *Journal of Studies on Alcohol*, 56, 173-6.

Crits-Christophe, P. and Mintz, J. (1991) Implications of therapist effects for the design and analysis of comparative studies of psychotherapies. *Journal of Consulting and Clinical Psychology*, 59, 20-6

DH \ NTA (2006) Models of Care for Alcohol Misusers (MoCAM) COI for the Department of Health.

Drummond, C. et al (2003) The effectiveness and the cost effectiveness of screening and stepped-care intervention for alcohol use disorders in primary care setting. Final Report to the Wales Office for Research and Development. St George's Hospital Medical School.

Drummond, C. et al (2005) Alcohol Needs Assessment research Project (ANARP): the 2004 Needs Assessment for England. Department of Health.

Duncan, D. and Taylor, D.(1996) Chlormethiazole or chlordiazepoxide in alcohol detoxification. *Psychiatric Bulletin*, 20, 599-601

Edwards, G. & Gross, M. (1976) Alcohol Dependence: Provisional description of a clinical syndrome. *British Medical Journal* (1). 1058-1061

Edwards G. (et al) (1977) Alcoholism: A controlled trial of 'treatment' and advice. *Journal of Studies on Alcohol*, 38,1813-1816

Edwards, G. et al (1994) *Alcohol Policy and the Public Good*. Oxford University Press.

Edwards, G. et al (2003) *The Treatment of Drinking Problems*, Cambridge University Press.

Emrick, C.D. and Hanson, J. (1983) Assertions regarding effectiveness of treatment for alcoholism: Fact or fantasy? *American Psychologist*, 38, 1078-1088.

Emmen, M.J. et al (2004) Effectiveness of opportunistic brief interventions for problem drinking in a general hospital setting: Systematic review. *British Medical Journal*, 328, 318-322.

Feingold, A. and Rounsaville, B. (1995) Construct validity of the dependence syndrome as measured by DSM-IV for different psycho-active substances. *Addiction* 90, 1661-9.

Filmore, K.M. (1987) Prevalence, incidence and chronicity of drinking patterns and problems among men as a function of age: a longitudinal and cohort analysis. *British Journal of Addiction*, 82, 77-83.

Funderburk, F.R. et al (1978) Residual effects of ethanol and chlordiazepoxide treatment for alcohol withdrawal. *The Journal of Nervous and Mental Diseases*, 6, 195-203

Gibbs, L. and Flanagan, J. (1977) Prognostic indicators of alcoholism treatment outcome. *International Journal of Addictions*, 12, 1097-1141.

Grant, B.F. et al (1992) DSM-III-R and proposed DSM-IV alcohol use disorders, United States 1988. A methodological comparison. *Alcoholism: Clinical and Experimental Research*, 16, 215-21

Harris, P (2007) *Empathy for the Devil: How to Help People Overcome Drug and Alcohol Problems*. Russell House Publishing.

Hasin, D. et al (2000) Withdrawal and tolerance: prognostic significance in the DSM-IV alcohol dependence. *Journal of Studies on Alcohol*, 61, 431-8.

Hays, R. D. et al (1995) Response burden, reliability and validity of CAGE, short MAST, and AUDIT alcohol screening measures. *Behavioural Research Methods, Instruments and Computers*, 27, 277-280.

Heather, N. et al (1983) A comparison of objective and subjective measures of alcohol dependence as predictors of relapse following treatment. *British Journal of Clinical Psychiatry*, 22, 11-17.

Heather, N. (1993) Disulfiram treatment for alcohol problems: Is it effective and if so, why? In C. Brewer (Ed) *Treatment Options in Addiction: Medical Management of Alcohol and Opiate Abuse*, Gaskell.

Helzer, J.E. and Pryzbeck, T.R. (1988) The co-occurrence of alcoholism with other psychiatric disorder in the general population and its impact on treatment. *Journal of Studies on Alcohol*, 49, 219-24.

Holder, H. et al (1991) The cost-effectiveness of treatment for alcoholism: A first approximation. *Journal of Studies on Alcohol*, 52, 517-20

Hughes, J.C, and Cook, C.C. H. (1997) The efficacy of disulfiram: A review of outcome studies. *Addiction*, 92, 381-395.

Hulse, G. et al (2000) Screening for hazardous alcohol use and dependence in psychiatric inpatients using the AUDIT questionnaire, *Drug and Alcohol Review*, 19, 291-298.

Jellinek, E.M. (1960) *The Disease Concept of Alcoholism*. Hillhouse Press.

Johnson, E.O. et al (1998) Alcoholism: extension of typology of alcohol dependence based on relative genetic and environmental loading. *Alcoholism: Clinical and Experimental Research*, 22, 1421-9

Klingemann, H.K. (1991) The motivation to change from problem alcohol and heroin use. *British Journal of Addiction* 86: 23-25.

Krystal, J.H. et al (2001) Naltrexone in the treatment of alcohol dependence. *New England Journal of Medicine*, 345, 1734-9

Luborsky, L. and O'Brien, C.P. (1985) Therapist success and its determinants. *Archives of General Psychiatry*, 42, 602-611

MacAndrew, C. and Edgerton, R.B. (1969). *Drunken Comportment: A Social Explanation*. Chicago: Aldine.

Marlatt, G.A. & Gordon, J.R. (Ed) (1985) *Relapse Prevention*. The Guilford Press.

Malcom, R. et al (2000) Multiple previous detoxifications are associated with less responsive treatment and heavier drinking during an index outpaiteint detoxification. *Alcohol*, 22, 159-164.

Marlowe, D. B., et al (2001) Multidimensional assessment of perceived treatment-entry pressures among substance abusers. *Psychology of Addictive Behaviours*, 15 (2): 97-108.

Meehan, J.P. et al (1985) The Severity of Alcohol Dependence Questionnaire (SADQ) in a sample of Irish drinkers. *British Journal of Addictions*, 80, 57-63.

Meyers, R. J. and Smith, J. E. (1995) *Clinical Guide to Alcohol Treatment: The Community Reinforcement Approach*. The Guildford Press

Miller, S.D., Duncan, B.L., Brown, J. Sorrell, R. and Chalk, M.B. (2004) Using outcome to inform and improve treatment outcomes. *Journal of Brief Therapy*. In Press.

Miller, S.D., Mee-Lee, D., Plum, B. and Hubble, M.A. (2005) Making treatment count: client directed, outcome informed clinical work with problem drinkers. *Psychotherapy in Australia*, 11 (4): 42-56.

Miller, W.R et al (2003) What works? A summary of treatment outcome research. In R.K. Hester and W.R. Miller (Eds) *Handbook of Alcohol Treatment Approaches: Effective Alternatives*. Allyn and Bacon.

Miller, W.R. and Munoz, R.F. (1982) *How to Control Your Drinking*. University of New Mexico Press.

Monterosso, J.R. et al (2001) Predicting treatment response to naltrexone: The influence of craving and family history. *American Journal of Addiction*, 10, 258-268.

Moyer, A. et al (2002) Brief Interventions for Alcohol Users: A Meta-analytic review of controlled investigations in treatment seeking and non-treatment seeking populations. *Addiction*, 97, 279-292.

Murray, R.M. (1977) Screening and early detection instruments for disabilities related to alcohol consumption. In Edwards, G. et al (Eds.) *Alcohol Related Disabilities*. WHO 32, 89-105.

O'Malley, S.S. et al (1992) Naltrexone and coping skills therapy for alcohol dependence. A controlled study. *Archives of General Psychiatry*, 49, 881-887.

Orford, J. and Edwards, G. (1977) *Alcoholism*. Oxford University Press

Paille, F.M. et al (1995) Double-blind randomised multicentre trial of acamprosate in maintaining abstinence from alcohol. *Alcohol and Alcoholism*, 30, 239-47.

Pattison, E. M. (1976) A conceptual approach to alcoholism treatment, *Addictive Behaviours*, 1, 177-192.

Peters, D. (1997) A natural classification of alcoholics by means of statistical grouping methods. *Addictions*, 92, 1649-61.

Piccinelli, M. et al (1997) Efficacy of the alcohol use disorder identification test as a screening tool for hazardous alcohol intake and related disorders in primary care. *British Medical Journal*, 314, 420-424.

Raistrick, D. et al (2006) Review of the Effectiveness of Treatment for Alcohol Problems, NTA. www.nta.nhs.uk

Rankin, H. et al (1982) Cues for drinking and degrees of alcohol dependence. *British Journal of Addiction*, 77, 287-96.

Room, R. (1977) Measurement and distribution of drinking patterns and problems in general populations. In Edwards, G. et al (Eds) *Alcohol Related Disabilities*, WHO 61-8.

Saunders, J.B et al (1993a) Development of the Alcohol Use Disorder Test (AUDIT): WHO collaborative project on early detection of persons with harmful alcohol consumption. II. *Addiction*, 88, 791-804.

Saunders, J.B et al (1993b) Alcohol consumption and related problems among primary health care patients: WHO collaborative project on early detection of persons with harmful alcohol consumption. I. *Addiction*, 88, 349-362.

Sass, H. et al (1996) Relapse prevention by acamprosate: results from a placebo controlled study on alcohol dependence. *Archives of General Psychiatry*, 53, 673-80.

Schuckit, M.A. (1985) The clinical implications of primary diagnostic groups among alcoholics. *Archives of General Psychiatry* 41, 1043-9.

Schuckit, M.A. et al (1997) Periods of abstinence following the onset of alcohol dependence in 1853 men and women. *Journal of Studies on Alcohol*, 58, 581-9.

Schuckit, M. A. et al (1998) Clinical relevance of the distinction between alcohol dependence with and without a physiological component. *American Journal of Psychiatry*. 41, 1043-9.

Skipsey, K. et al (1997) Utility of the AUDIT for identification of hazardous or harmful drinking in drug dependent patients. *Drug and Alcohol Dependence*, 45, 157-63.

Slattery, J. et al (2003) Relapse prevention in alcohol dependence. Health Technology Assessment Report 3. Health Technology Board for Scotland.

Sobell, M.B. and Sobell, L.C. (1993) Treatment for problem drinkers: A Public Health Priority. In Baer, J.S. et al (Eds) *Addictive Behaviours across the Lifespan: Prevention, Treatment and Policy Issue*, Sage.

Sobell, M.B. and Sobell, L.C. (1993) *Problem Drinkers: Guided Self-Change Treatment*. Guilford Press.

Stockwell, T. et al (1979) The development of a questionnaire to measure alcohol dependence. *British Journal of Addiction*, 74, 145-55.

Stockwell, T. et al (1983) The severity of alcohol dependence questionnaire: its use, reliability and validity. *British Journal of Addictions* 78, 145-55.

Sundby, P. (1967) *Alcoholism and Mortality*. University Forlaget.

Taylor, C. (1994) What happens over the long term? In Edwards, G. and Peters, T.J. (Eds) *Alcohol and Alcohol Problems*. Churchill Livingstone.

Vaillant, G.E. (1983) *The Natural History of Alcoholism*. Harvard University Press.

Vaillant, G.E. (1995) *The Natural History of Alcoholism Revisited*. Harvard University Press.

Volpicelli, J.R. et al (1992) Naltrexone in the treatment of alcohol dependence. *Archives of General Psychiatry*, 49, 876-880.

WHO (1980) Problems related to alcohol consumption, Report of a WHO expert committee. Report series 650, WHO.

Williams, D. and McBride, A.J. (1998) The drug treatment of alcohol withdrawal symptoms: A systemic review. *Alcohol and Alcoholism*, 33, 103-115.

Wittchen, H. (1994) Reliability and Validity studies of the WHO Composite International Diagnostic Interview (CIDI): A critical Review. *Journal of Psychiatric Research*, 28, 57-84.