Chapter 11 Aftercare and long-term follow-up

Recommendation	Strength of recommendation	Level of evidence
11.1 Long-term follow-up of patients following an intensive treatment program is recommended as part of a comprehensive treatment plan, reflecting the chronic relapse possibility of alcohol dependence.	D	IV

A number of studies have examined various methods of continuing care for patients with alcohol use disorders. For example, a telephone intervention was tested for acceptability and feasibility by Burleson and Kaminer for short-term follow-up of adolescents (Burleson and Kaminer 2007). Four therapists and 43 adolescents who completed a series of manualised guided follow-up telephone interventions responded favourably and consistently to a questionnaire concerning its acceptability, feasibility, and confidentiality.

Three other studies tested the effect of continuing care by telephone on abstinence rates (Rus-Makovec and Cebasek-Travnik 2008; McKay et al. 2004; McKay et al. 2005; Horng and Chueh 2004). The first study showed a positive influence on quality of life in the telephone follow-up group but had no effect on abstinence rates at the long term (Rus-Makovec and Cebasek-Travnik 2008). Positive indicators of therapy success (abstinence or decrease in drinking, stable social relations, and more positive self-evaluation of well-being) were found in 53% of patients at 3 months, 44% at 6 months, and 31% at 12 months in the telephone group. However, groups did not significantly differ in abstinence level (telephone group=28%, control group=24%) at the 24-month mark. There were significant differences in measure of well-being, with the telephone group scoring higher on self-assessment of psychological health, self-evaluation of financial status, and general quality of life.

The McKay studies showed more positive effects. The 2004 publication (McKay et al. 2004) looked at continuing care for 359 substance dependent (alcohol and/or cocaine) patients, using a randomised procedure, comparing a telephone-based monitoring and brief counselling intervention (TEL) with 2 face-to-face interventions, relapse prevention (RP) and standard 12-step group counselling. Self-report, collateral, and biological measures of alcohol and cocaine use were obtained over a 12-month follow-up. The treatment groups did not differ on abstinence-related outcomes; however, in participants solely with alcohol dependence (n = 91), the telephone group (TEL) improved more than did the 12-step group; heavy drinking days decreased from 40-50% prior to follow-up care, to 5% of days at 3 months and 8-18% at 12 months.

At 24-month follow-up the results were similar but were no longer significant between the groups (McKay et al. 2005). However the TEL group did not deteriorate faster, as might have been expected, over time; they still had higher rates of abstinence than the 12-step group, and had lower GGT levels than the RP group, at the 24- month mark. It seems apparent from this study that telephone-based counselling following an intensive stabilisation period is as effective as more intensive face-to-face treatments and is more cost-effective.

A smaller study of patients (34 in each group) recruited from a psychiatric centre (Horng et al. 2004) used a quasi-experimental pre-post control group design to compare abstinence rates, re-admission rates, alcohol consumption, addiction severity and social adjustment between the two groups. The experimental group received regular telephone counselling at 1, 3, 5, 9, and 13 weeks after discharge. These sessions were 30 minutes to one hour in length. All outcome measures showed significant differences between the groups at 3 month follow-up. Readmissions in the control group were 38% while in the experimental group was 9%; both groups decreased alcohol consumption; the experimental group's average alcohol consumption was 28g compared to the control group's average 119g; however the control group had a higher level of consumption at baseline. The authors conclude that telephone counselling is highly recommended to help reduce readmission, to improve social functioning, and to reduce alcohol consumption post-discharge for alcoholism. They do recognise that the experimental group was more highly motivated to change, as participants were not randomly selected, and that it may have been difficult to continue beyond 3 months due to mobility of their patients. This limits the generaliseability of their results.

Another study of follow-up focussed on improving compliance with aftercare treatment by 74 patients on disulfiram, following their admission to an inpatient program (Neto et al. 2007). This study focussed on attendance at aftercare groups, psychiatric appointments, and attendance at AA. The results, using intention-to-treat analysis, show that 39% of patients were abstinent at 6 months; the largest percentage of relapses occurred at 3 months. However 80% were abstinent at 30 days and the relapse rate slowed, with the median time to first relapse at 120 days. A closer inspection showed that 47% of patients had not attended their monthly outpatient psychiatric appointment, 20% had not attended the fortnightly aftercare groups, and 34% had not attended the AA sessions. This matter of compliance would seem to be major factor in the success (or failure) of such a program.

A randomised controlled trial of adolescents with alcohol use disorders (Kaminer et al. 2008) also looked at the effect of outpatient aftercare on abstinence rates, frequency of drinking, and cannabis use (n = 177). Participants were assigned to 5 face-to-face sessions (active aftercare), brief telephone follow-up, or no contact. All had completed 9 weekly cognitive behavioural therapy group sessions to address their alcohol problems. Results at three months showed the likelihood of relapse increased significantly in the no contact condition, although all groups relapsed to a degree. The differential treatments were more effective for females; there was a significant change in abstinence rate for girls from baseline to follow-up in the active aftercare 5-session group. The results are not clearly presented in the paper; however the active aftercare produced better outcomes than did the control condition. Youths enrolled in active aftercare showed significantly fewer drinking days ($p = .044$) and fewer heavy drinking days ($p = .035$) per month relative to controls. The authors conclude that, in general, active aftercare was effective in slowing the expected relapse to higher frequency and amount of alcohol use; however, maintenance of treatment gains was only achieved for females.

Other studies reinforce the evidence for longer treatment and longer follow-up having more beneficial results for patients. Moos and Moos looked at the influence of duration and intensity of treatment on 473 previously untreated patients with alcohol use disorders (Moos and Moos 2003). They found that, compared with patients who did not enter treatment immediately, individuals who started treatment relatively quickly and who obtained a longer duration of treatment had better short- and long-term alcohol-related outcomes and better short-term social functioning. Patients were

followed up at 1-year, 3-year and 8-year intervals. It was found that patients who underwent a longer duration of additional treatment had better alcohol-related outcomes than others who had no additional treatment but, in those who delayed treatment entry, the duration of treatment was not associated with improved outcomes. In general, the intensity of treatment was not related to better outcomes; rather the length of treatment was the deciding factor, with 68% being abstinent at an 8-year interval after 53 or more weeks of continuing additional treatment. The message from this particular study seems to be – start treatment immediately and keep in continued contact (at least once weekly) for at least one year.

Two other longitudinal studies followed patients over 16 and 20 years. The first one (Ilgen et al. 2008) surveyed 420 US patients who had not received treatment for alcohol use disorders at baseline and 1 year and reassessed them at 8 and 16 years. It is not stated whether any treatment was delivered to these people; it appears to be a naturalistic study. In the 6 months prior to the 1-year assessment, 36% reported abstinence from alcohol, 48% reported drinking problems, and 16% reported non-problem drinking. At each follow up, between 16% and 21% of the entire sample were problem-free. Those who were problem-free at 1 year had reported, at baseline, fewer days of intoxication, fewer drinks per drinking day, fewer alcohol dependence symptoms and alcohol-related problems, less depression, and more adaptive coping mechanisms than did the abstinent and problem-drinking participants. In addition, 48% of participants who were problem-free at 1 year continued to report positive outcomes (either no problem drinking or abstinence) throughout the long-term follow-up, whereas 77% of those who were abstinent at 1 year reported the same positive outcomes throughout the same period.

Gual et al's 20-year follow-up (Gual et al. 2009) covered 850 patients in 8 addiction centres in Catalonia, evaluating long-term outcomes after outpatient treatment. This treatment focussed on abstinence, building on awareness of alcohol dependence as an illness, the acquisition of new lifestyle habits, and improvement of quality of life, delivered over a 2-year period. Participants were followed up at 1, 5 and 10 years, and then 20 years, using quantity-frequency measures of alcohol consumption over the previous 12 months. All information was collected at interview with either a psychiatrist or clinical psychologist from the initial study centres. Data were also collected about chronic illnesses, medications, hospital visits, alcohol-related accidents, employment, financial or legal problems, or disability; psychosocial stress was assessed using DSM-III-R Axis IV. Results show that 50% were abstinent at year 5, 42% at year 10 and 33% of the original sample at year 20 (32% were deceased by that time, and 10% lost to followup). Women had better outcomes, with 84% abstinent at 20 years, compared to 66% of men; mortality rates were significantly different (22% of women compared to 34.5% men; $p = 0.03$). A factor that is recognised by the authors is that heavy drinkers had double the mortality rates than controlled drinkers or abstainers, with 5-year drinking status predicting mortality rates at 10 and 20 years, thus abstinence rates remain high in the surviving cohort (70% of those who answered questions at 20 years).

Recommendation	**Strength of recommendation**	**Level of evidence**
11.2 A range of clinical strategies should be used to reduce alcohol-related harm in people who continue to drink heavily and resist treatment. These include attending to medical, psychiatric, social and medico-legal issues, maintaining social supports, and facilitating	D	IV

reduction in alcohol intake.		

The authors of one of the studies above also examined the personal and social resources that predicted positive alcohol-related outcomes in that particular study, following up 461 patients (Moos and Moos 2007). They found that in general, social learning (self-efficacy and approach coping), health and financial resources, association with Alcoholics Anonymous, and bonding with family members, friends, and co-workers predicted better alcohol-related and psychosocial outcomes. In particular, more self-confidence and financial resources at one year independently predicted less 3-year alcohol consumption and fewer drinking problems. Better health and participation in AA also predicted fewer drinking problems, while more self-confidence and more health and financial resources predicted less depression. The social learning and health and financial resources also tended to predict better 8-year outcomes. The authors conclude that the application of social learning theory, economic behaviour, and social control theories may help to identify predictors of remission. If these are tackled at the same time as treatment for alcohol problems in isolation, better results may be achieved.

Other factors affecting positive outcomes include the length of initial stay in treatment and attendance at 12-step programs. One such study looked at gender differences in seven year outcomes among older adults (Satre et al. 2007). The sample was 25 women and 59 men aged 55 and over who took part in one of two treatment options in the same abstinence-based program. Average length of stay in treatment, including after care of up to one year, was 142.6 days among women and 80.1 days among men. At seven years, 76% of women reported abstinence in the prior 30 days while 56% of men did so. Also at 7 years, more frequent attendance at 12-step programs (mean 3.9 meetings in previous 30 days) was significantly associated with abstinence in the same period. Abstinent people also reported attending significantly more meetings in the prior 12 months (mean 42.8) vs a mean of 2.3 meetings for non-abstinent participants ($p = 0.005$). The authors consider that, given the projected rate of growth in the older population, the influential factors for successful treatment of older people for alcohol problems need to be carefully assessed and implemented.

There are several other studies that report on various dimensions that influence continuity of care. One article (Schaefer et al. 2008) looked at staff practices and engagement in care, and whether they mediated or moderated the interaction between the patient and treatment factors. They compared the 18 different intensive outpatient substance use disorder programs that varied in their continuity of care practices, in which 429 patients were enrolled. Methadone maintenance programs were excluded; however most patients (82%) had an alcohol and drug problem. They found that abstinence was more likely to occur when the patient's discharge plan specified at least one follow-up care appointment per week, appointments were arranged before discharge, drug-free or sober living arrangements were available, and when patients were engaged for a longer time (up to 6 months, in this case) in continuing care. They also state that psychiatric or clinic use in the year prior to entry for treatment, completion of treatment, access to transport for appointments, and more patient motivation for continuing care also predicted abstinence. The follow-up rate was 78% and almost all patients were male (98%); therefore this study may not be generalisable to females. Average age was 47 (standard deviation, SD = 7.9) years; 58% were divorced or separated, and at discharge 25% were employed.

A pilot study by Passetti et al (Passetti et al. 2008) examined community treatment methods to engage alcohol-dependent patients in treatment. They compared two clinics which differed in the degree of assertiveness with which they tried to engage people with a history of repeat presentation for alcohol problems. The usual care

clinic sent patients an opt-in letter and they had to telephone for an appointment. The flexible access clinic operated a walk-in service; caseloads were smaller, and the staff telephoned patients reminding them to attend a session. Failure to attend was followed up. Staff role composition was similar at each clinic. Results of this study show that retention in treatment of recidivist patients was more likely in the flexible care clinic, with 35% completing withdrawal compared to 26% of usual care patients ($p<0.05$), and 23% entering aftercare compared to 14% ($p<0.02$). However, as patients were not randomly assigned, selection bias may have occurred.

A small quasi-experimental study (n = 40) evaluated whether social reinforcement would further improve aftercare attendance and treatment outcome (Lash et al. 2004). Socila reinforcement in this case was personal verbal recognition by the therapist, a certificate of attendance at the 6th visit, their name on an honour roll and a medallion on completion of 8 sessions. At 6-month follow-up, patients who received social reinforcement had less alcohol use, and were also more likely to be abstinent form alcohol than the standard care patients (76% versus 40%; $p = 0.036$). They were also more likely to attend aftercare for a longer time (up to 12 months). This seems a very simple strategy, but it was effective in encouraging attendance and reduction in alcohol use. Randomisation was not possible due to patients' personal schedules but the two groups were very similar on demographic variables, diagnostic criteria or Addiction Severity Index scores at baseline. However it must be noted that drug use was not affected by the social reinforcement technique; it was only effective for alcohol.

Another method of keeping patients engaged in treatment is presented in a paper by Collins et al. (2007). These authors describe three case studies of patients for whom email was utilised between patient and physician as an adjunct to the ongoing treatment for alcohol or substance dependency. They applied this method to selected patients who were at higher risk due to previous relapse or to complacency, and they were invited to communicate with their addiction specialists. They have continued for between 6 months and 5 years. It comes through from these selected studies that the support gained by patients was highly effective in aiding their continuance and perseverance in recovery programs. Patients using this method (or selected to use this method) are commonly high-functioning professionals who might otherwise feel isolated and who benefit from the constant responses of their provider. They are accustomed to self-analysis, able to express themselves clearly and are willing to email daily. For one patient it also served as a map of progress.

It is important therefore to utilise all and any method of retaining patients in after care using whatever method is available, cost-effective, and feasible to both the patient and the provider of care

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