DRUG & ALCOHOL FINDINGS *Research analysis*

This entry is our analysis of a study considered particularly relevant to improving outcomes from drug or alcohol interventions in the UK. The original study was not published by Findings; click Title to order a copy. Free reprints may be available from the authors – click prepared e-mail. Links to other documents. Hover over for notes. Click to highlight passage referred to. Unfold extra text The Summary conveys the findings and views expressed in the study. Below is a commentary from Drug and Alcohol Findings.

Effectiveness of inpatient withdrawal and residential rehabilitation interventions for alcohol use disorder: A national observational, cohort study in England.

Eastwood B., Peacock A., Millar T. et al.

Journal of Substance Abuse Treatment: 2018, 88, p. 1–8.

On the important national indicator of completing treatment and not returning for treatment in the following six months, inpatient and residential treatments for alcohol use disorders in England appeared to be effective half the time. Longer duration of treatment and ongoing care were associated with a greater likelihood of successfully completing treatment.

SUMMARY The featured study aimed to estimate the effectiveness of two types of publicly-funded treatment options in England for harmful drinking or dependence on alcohol (referred to as 'alcohol use disorders'), aimed at people with a higher level of severity of drinking problem and/or with additional needs that need to be taken into account during their treatment:

1. Inpatient withdrawal is recommended for patients who require medically-assisted alcohol withdrawal along with 24-hour assessment and monitoring, including those at risk of seizures or delirium tremens. It usually involves a 5–7 night stay in a controlled hospital environment with pharmacological interventions for the medical management of withdrawal.

2. Residential rehabilitation is recommended for patients who do not have stable housing and/or may require intensive longer-term treatment. It usually involves a 6–12 weeks stay in a residential facility which provides a phased, structured programme of psychosocial interventions.

There are a relatively small number of places in inpatient and residential treatments, which complement structured psychosocial and pharmacological therapies delivered in outpatient or community settings.

Key points
From summary and commentary

The study assessed the effectiveness of inpatient and residential treatments for alcohol use disorders commenced in England between 2014 and 2015.

On the important national indicator of completing treatment and not returning in the following six months, over half of patients were successful.

This was more likely to happen when there was a longer duration of treatment and patients received ongoing outpatient care.

The study involved 3,812 patients recorded as starting treatment for alcohol use disorders between 1st April 2014 and 31st March 2015, in the 171 specialist inpatient withdrawal and residential rehabilitation services in England. Excluded were patients who reported problems with other psychoactive substances at their assessment, had missing information at both their assessment and admission about the amount they were drinking, or had missing information about their outcomes when they left treatment.

The study aimed to assess the lasting success of these treatments. The primary outcome was based on patients who completed their treatment (including follow-on treatments which formed part of the same treatment 'journey') within 12 months of starting residential treatment. Successfully completing treatment was defined as no longer having an alcohol use disorder on discharge from the treatment system, either abstinent or not drinking heavily, and having completed a care plan. Sustained success incorporated the additional criterion of not re-presenting to any service for further treatment in the following six months.

Main findings

Most patients received inpatient withdrawal (70%), around a quarter received residential rehabilitation (24%), and a very small proportion (6%) received both inpatient withdrawal and residential rehabilitation. In the outcome analyses the latter group were amalgamated with the residential rehabilitation group.

Compared with those who received inpatient withdrawal, patients in receipt of residential rehabilitation were significantly more likely to be homeless or living in unstable housing, to report abstinence at their initial assessment, and to be exposed to treatment for longer. Patients receiving residential rehabilitation were also considerably (but not significantly) more likely to be referred from the criminal justice system (53%

versus 9%).

During and as part of their current treatment journey, patients receiving inpatient withdrawal were more likely to receive some form of 'recovery support' (activities targeted at relapse prevention and generating improvements in areas such as employment, housing, parenting, and family), and significantly more likely to receive non-residential treatment both prior to and after discharge from inpatient or residential treatment:

- Two-thirds (70%) of all patients received recovery support (70% inpatient withdrawal vs. 50% residential rehabilitation) at some point in their treatment journey.
- About half of all patients (53%) had received outpatient treatment in the lead up to residential treatment and as part of the same treatment journey (57% inpatient withdrawal vs. 39% residential rehabilitation).
- About half the patients (52%) received structured outpatient treatment after leaving their residential treatment and as part of the same treatment journey (61% inpatient withdrawal vs. 28% residential rehabilitation).

Among the inpatient withdrawal group the typical (median or midpoint in the range of values) duration of the entire treatment journey was six weeks, compared with 13 weeks among the residential rehabilitation group.

Over half (59%) of patients were successfully discharged from treatment within 12 months and did not re-present to treatment in the following six months. This rate was higher among those who received residential rehabilitation (64%) than inpatient withdrawal (57%). An additional 202 people (just over 5%) successfully completed treatment within the 12-month time range, but returned to treatment in the next six months. A further 17% of patients were unsuccessfully transferred to other treatment, and 15% dropped out of treatment altogether.

Among residential rehabilitation patients, the longer (up to 12 months) they had stayed in this setting, the greater the likelihood of their successfully completing treatment without having to return over the next six months. This was not the case among inpatient withdrawal patients; for them, longer inpatient stays were not associated with a greater chance of sustained treatment success. For both sets of patients, having experienced previous treatment journeys [after which they had presumably relapsed] was associated with a slightly and non-significantly lower odds overall of sustained treatment success. However, among inpatient withdrawal patients, when non-residential treatment led up to the inpatient stay and formed part of the same treatment journey, the chances of sustained success were greater. The reverse was the case for residential rehabilitation patients. For both sets of patients, moving seamlessly on to non-residential treatment after leaving the more intensive care of inpatient/residential treatment was associated with a greater likelihood of sustained treatment success.

The analysis did not reveal a significant link between the provision of additional recovery support and successful completion of treatment. However, as the National Drug Treatment Monitoring System could not capture non-structured recovery support or services offered outside of reporting agencies the study may have underestimated rates of engagement in recovery support.

The authors' conclusions

In this first national study to examine the effectiveness of inpatient and residential treatments in England for helping people recover from alcohol use disorders, better treatment outcomes were associated with longer duration of treatment in residential rehabilitation and the provision of continuing care. These findings reinforce the understanding of alcohol use disorder as a chronic condition, whereby sustained provision of support over time can help to delay the time until relapse.

The study could not determine the relative effectiveness of residential rehabilitation and inpatient withdrawal as participants were not randomly allocated to these settings, and the treatments were accessed by patients with significantly different circumstances. Inpatient withdrawal is often considered the first step in the treatment journey, and focused purely on withdrawal, while residential rehabilitation is often focused on maintaining abstinence. Inpatient withdrawal is also typically a week or so in duration, while residential rehabilitation often lasts several months.

FINDINGS COMMENTARY For the small cohort of people with severe and chronic drinking problems of the kind seen by treatment services in the UK, this study found that treatment in English residential and inpatient settings were effective over half the time based on the important public health indicator of not just completing treatment successfully, but also not returning to treatment within six months. As the authors pointed out, this primary outcome was a "proxy for remission", capturing people who for whatever reason did not re-present for treatment; especially if treatment sees only a fraction of problem drinkers, many more may have relapsed, but without returning to treatment.

Ground-breaking and important as it is, it is also important to understand the study's limitations. It provided a snapshot of success for those accessing treatment, not the broader population of people with alcohol use disorders who would qualify for or potentially benefit from inpatient or residential treatments. Therefore it could not be assumed that the

UK guidance on the management of harmful drinking and alcohol dependence

Based on a 'root and branch' re-

success or otherwise of this cohort would also apply to patients who would enter if treatment were made more widely available and reached a much greater proportion of the problem drinking population.

Furthermore, the study was not designed to compare inpatient withdrawal with residential rehabilitation – treatments likely to appeal to patients with different needs, different goals, and different levels of 'recovery capital': the "internal and external assets required to initiate and sustain long-term recovery from alcohol and other drug problems". Instead of artificially randomising patients to one treatment or another, the featured study observed the natural treatment pathways of patients – a less rigorous way of assessing effectiveness, evaluating the success of treatment in its natural context including the decisions which lead to treatment and the processes that follow. Though there may be some overlap between the groups, the study generally supported the idea that patients receiving inpatient withdrawal and residential rehabilitation have different characteristics, for example in terms of their housing situation and access to continuing care.

The authors of the featured study found that a greater proportion of patients in residential rehabilitation than inpatient withdrawal successfully completed treatment, though due to the smaller pool of patients in residential rehabilitation, only 554 of the 2076 patients who successfully completed treatment did so via residential rehabilitation (with an additional 105 through a combination of inpatient withdrawal and residential rehabilitation). The advantage associated with residential rehabilitation was slight – 64% vs. 57% – despite residential rehabilitation being designed to rehabilitate and aiming for lasting abstinence, compared with inpatient withdrawal which is more about withdrawing safely with no necessary expectation that this will be a lasting change. This did not appear to be explained by patients in residential rehabilitation representing a more severe caseload. In fact, a greater percentage of patients in inpatient withdrawal met criteria for 'high-extreme' and 'extreme' drinking problems. Patients receiving residential rehabilitation were, however, considerably (but not significantly) more likely to be referred from the criminal justice system. It is unclear what this means or what the implications might be, but it could potentially have impeded effectiveness overall if the greater proportion of criminal justice referrals represented a less 'willing' caseload.

The study was unable to rule out other factors contributing to patient outcomes because there was no control group of patients receiving no intervention or none relevant to the outcomes being assessed, and therefore it would not be possible to say that any progress made by the patients was due to the specific treatment they received. An audit from England's National Treatment Agency for Substance Misuse showed that isolating the benefits can be difficult anyway as residential services tend to be so entwined with non-residential services in people's treatment journeys. Nevertheless, the same audit published in 2012 found that patients who have spent time in residential rehabilitation have "consistently better" outcomes. It also found that compared to people with drug use problems, in residential treatment those with drinking problems tended more often to succeed in their treatment and fewer dropped out.

While it could not determine what caused the successful completion of inpatient or residential treatment, the study did find that it was associated with longer duration of treatment and ongoing care in residential rehabilitation. The design of the study could not enable conclusions to be drawn about whether there was a causal connection between successful treatment completion and longer duration of treatment or ongoing care, which leaves the possibility that these were merely indicators of patients with greater motivation, stability and/or resources in their lives. On the whole, continuous treatment tends to be much less common for drinkers than people with opioid use problems. Compared to treatment for opioid use problems dominated by maintenance prescribing, alcohol treatment dominated by psychosocial approaches tends to be more of an in-and-quickly-out proposition.

assessment of what evaluation research means for alcohol dependence treatment in the British context, the National Institute for Health and Care Excellence issued the following guidance:

Consider inpatient or residential assisted withdrawal if a service user meets one or more of the following criteria:
• drinking over 30 units of alcohol per day;
• scoring more than 30 on the Severity of Alcohol Dependence Questionnaire (SADQ) indicating severe alcohol dependence;
• a history of epilepsy, or experience of withdrawal-related seizures or delirium tremens during previous assisted withdrawal programmes;
• needing concurrent withdrawal from alcohol and benzodiazepines;
• regularly drinking between 15 and 30 units of alcohol per day as well as having significant psychiatric or physical comorbidities (for example, chronic severe depression, psychosis, malnutrition, congestive cardiac failure, unstable angina, chronic liver disease, or a significant learning disability or cognitive impairment).

Consider a lower threshold for offering inpatient or residential assisted withdrawal to vulnerable groups, for example, homeless people and older people.

For people with alcohol dependence who are homeless, consider offering residential rehabilitation for a maximum of three months. Help the service user find stable accommodation before discharge.

Non-residential treatment leading up to the residential/inpatient stay was associated with a greater chance of sustained success when that stay was for inpatient withdrawal, but a lower chance when it was for residential rehabilitation. It seems that non-residential preparation either made withdrawal more lastingly effective, was a marker of patients more committed to treatment and/or recovery, or indicated that the withdrawal was a planned recovery option rather than an emergency response. In contrast, perhaps the need for non-residential preparation prior to residential rehabilitation was a marker of greater difficulties in achieving sustained remission.

The same research team have published findings on the clinical effectiveness of community-based interventions over the same time period. Over half (58%) of all patients admitted for community-based treatment in England successfully completed treatment within 12 months and did not return for further treatment in the following six months. Overall, this was more likely when patients received pharmacological treatment along with psychosocial support, even more likely when they received recovery support, and more likely again when patients received a combination of pharmacological and psychosocial interventions plus recovery support. The association between receipt of pharmacotherapy and successfully completing treatment was stronger among groups with a greater severity of drinking problems.

On the question of whether residential treatment as a whole is more effective than a non-residential alternative, an Effectiveness Bank summary of residential versus non-residential care identified the value of residential settings in helping extricate residents from particularly damaging environments, the benefits of which may fade after discharge back into the community. Those particularly benefitting have included people at risk of suicide and clients with relatively severe psychiatric problems, in some cases combined with severe employment or family problems. The studies reviewed support the general contention that clients with more severe problems and dependence differentially benefit from residential care. Where studies have found no added benefit for more severe cases this may have been because the service's caseload was limited in severity, or because the study set severity limits so that all the subjects could safely be allocated to residential or non-residential care.

Last revised 23 January 2019. First uploaded 26 November 2018

Top 10 most closely related documents on this site. For more try a subject or free text search

REVIEW 2011 Alcohol-use disorders: diagnosis, assessment and management of harmful drinking and alcohol dependence

STUDY 2010 Long-term outcomes of aftercare participation following various forms of drug abuse treatment in Scotland

REVIEW 2008 Effective services for substance misuse and homelessness in Scotland: evidence from an international review

STUDY 2012 Four-year outcomes from the Early Re-Intervention (ERI) experiment using recovery management checkups (RMCs)

STUDY 2005 'Real-world' studies show that medications do suppress heavy drinking

REVIEW 2013 Metaanalysis of naltrexone and acamprosate for treating alcohol use disorders: when are these medications most helpful?

REVIEW 2009 Continuing care research: what we have learned and where we are going

STUDY 2008 Self-financing resident-run houses maintain recovery after treatment

STUDY 2009 The Drug Treatment Outcomes Research Study (DTORS): final outcomes report

STUDY 2011 Extended telephone-based continuing care for alcohol dependence: 24-month outcomes and subgroup analyses