

This entry is our account of a review or synthesis of research findings selected by Drug and Alcohol Findings as particularly relevant to improving outcomes from drug or alcohol interventions in the UK. Unless indicated otherwise, permission is given to distribute this entry or incorporate passages in other documents as long as the source is acknowledged including the web address <http://findings.org.uk>. The original review was not published by Findings; click on the [Title](#) to obtain copies. Links to source documents are in [blue](#). Hover mouse over [orange](#) text for explanatory notes. The Summary is intended to convey the findings and views expressed in the review. Below are some comments from Drug and Alcohol Findings.

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► **Brief interventions for heavy alcohol users admitted to general hospital wards.**

McQueen J., Howe T.E., Allan L. et al.

Cochrane Database of Systematic Reviews: 2011, 8, Art. No. CD005191.

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Many with alcohol-related disorders, risky drinking hospital inpatients with time to reflect on their problems ought to be prime candidates for brief advice. This updated synthesis of studies found some significant impacts but these were inconsistent, perhaps because merely being identified as a heavy drinker has an impact on its own.

Summary Brief interventions are a time-limited intervention focused on changing behaviour, ranging from a few minutes of information and advice to up to three sessions of motivational interviewing or skills-based counselling involving feedback of assessment results. Risky drinkers among inpatients on hospital wards or in trauma centres are promising targets for brief interventions focused on drinking. These settings provide an opportunity to identify risky drinkers when they are accessible to health professionals, have time for an intervention, and can be made aware of any links between their hospitalisation and their drinking. Following [a review](#) supporting similar interventions in GPs' surgeries, this review aimed to assess whether they also reduce drinking and drink-related problems when conducted in hospital inpatient units.

A thorough search was conducted for studies which randomly allocated [adult](#) patients to a [brief intervention](#) versus [no alcohol intervention](#) or usual care – or in some other way recruited an adequate comparison group – and then followed up the patients to see whether they had cut back on their drinking. Eligible studies were published in 2011 or earlier and concerned [inpatients](#) admitted to hospital not specifically for alcohol treatment, but who while there were identified as at risk due to their drinking.

The search discovered 14 such studies involving 4041 participants. [When possible](#) their results were amalgamated using [meta-analysis](#).

Main findings

Combined results from four studies which re-assessed patients six months later showed that on average those allocated to a brief intervention were drinking about [69g](#) less alcohol per week than comparison patients, a statistically significant difference unlikely to have occurred by chance. However, results varied across the studies. One which recorded a much greater difference than the others (and the only one in which this was statistically significant) featured several follow-up advice sessions, and the people assessing the outcomes knew who had been allocated to the brief intervention. Leaving out this study, brief intervention patients were still drinking [55g](#) a week less, but now the difference fell just short of statistical significance. Across four studies which re-assessed patients not six months but a year later, the combined [34g](#) difference in weekly alcohol consumption due to the intervention was not statistically significant and neither was it in any of the individual studies. Results for other follow-up periods were available from just a single study conducted in Taiwan.

These results were based on amounts being drunk at the follow-up assessment. Other studies enabled a similar analysis, but based on reductions in drinking from before to after the intervention. Across two studies which assessed patients at 12 months, the extra reduction in drinking due to intervention was not statistically significant, and nor was it in two studies which re-assessed patients at six months. In each case one of the individual studies registered a statistically significant difference but the other did not.

In addition, one study from Taiwan found that a year after intervention screening scores on the [AUDIT questionnaire](#) which assesses risky drinking were lower among brief intervention than control patients. Another Taiwanese study found that heavy drinking episodes were fewer after brief intervention across a one-year follow-up period. Deaths were significantly fewer in brief intervention patients at six and 12-month follow-ups, the latter based on seven studies in which 28 per 1000 brief intervention patients died compared to 51 per thousand among the controls. Across studies which included both men and women, no other differences in indicators of drinking severity or consequences were statistically significant.

The authors' conclusions

The analysts concluded that patients receiving brief interventions drink less than those in control groups six and nine months later but this is not maintained at one year. In addition there were significantly fewer deaths in the groups receiving brief interventions than in control groups at six months and one year. It was, they thought, conceivable that inconsistent benefits might be due to the fact that simply screening and assessing patients had an impact of its own, which it was difficult for a further brief intervention to improve on.

FINDINGS For the [reasons given](#) in the featured review, hospital inpatients seem promising candidates for alcohol interventions, yet the review found inconsistent evidence of an impact on their drinking over and above hospital admission and screening/assessment. Since reducing amounts drunk is the most usual way brief interventions seek to improve health, arguably the key measure was the reduction in drinking from before to after intervention. On this count there were no statistically significant benefits from the interventions. The closest the findings got to such an effect (a non-significant 26g per week extra reduction) was in the two studies which reported these figures six months after the intervention. The result was largely due to a Scottish study in which almost the same extra reduction in drinking was seen among another group of patients who were simply handed a written guide to sensible drinking.

Of considerable interest is the finding of significantly fewer deaths in the following year among counselled patients. This was mainly due to two studies conducted in [Taiwan](#) and [Germany](#). These reported deaths only to explain loss to follow up, not as an outcome the studies intended to measure. Certainly in the case of the German trial, assessing the intervention in terms of deaths was [not on the agenda](#). Since deaths were not an intended outcome measure, neither study seems to have taken any special steps (such as checking official records) to establish which patients had died and which simply could not be contacted. Until this finding is confirmed in studies set up to assess impacts on deaths, it is best considered promising but tentative.

Along with the international literature represented in the featured review, results from the UK ([► below](#)) give little reason to rely on hospital inpatient settings for reducing drinking and related problems through brief interventions, and suggest that screening alone and/or handing over an advice booklet is often just as effective. No British study has found a longer intervention preferable to a shorter one. On the other hand, these interventions *can* reduce drinking, and in some studies substantially reduced risk or harm. Since very brief and unsophisticated interventions including screening [often work as well](#) as longer ones, even if the pay-off is uncertain, the required investment is minimal. Also screening can identify patients severely at risk who require fully fledged treatment.

The studies behind the finding of less drinking six months after intervention

The main positive finding related to *amounts* drunk six months after intervention, rather than how much patients had cut down from before the intervention – a less reliable measure of intervention impact because it is more vulnerable to differences in the drinking of the patients even before the intervention was delivered. For other reasons it is also questionable whether this finding represented the impact of a brief

intervention as normally conceived. In the featured review, omitting the study with the largest impact on the grounds that the intervention was not really brief rendered the finding insignificant. Examining this and the remaining three studies which underpinned the finding raises further issues about whether a brief intervention was responsible for the changes in drinking. The relevant issues are summarised below; for study-by-study details, see [background notes](#).

There is doubt over whether the data included in the review from two of these studies actually tested what is normally thought of as a brief intervention. [One](#) recorded an unusually large impact when patients seriously injured (we can fairly assume) as a result of their heavy drinking were repeatedly counselled by a nurse and their doctors. Omitting this study meant the combined findings were no longer statistically significant. [Another](#) which also [contributed](#) substantial drinking reductions involved a home visit – perhaps beyond the scope of a truly 'brief' intervention – and was vulnerable to bias in its findings. In a [third study](#), whether the brief intervention was responsible for drinking reductions was called in to question by the fact that simply handing patients an advice booklet was equally effective. In [another](#), a positive contribution to the finding that brief interventions were effective would have been negative had another brief intervention variant tested in the study been selected for the analysis. In two of the studies ([1 2](#)) the degree of loss to follow-up or its imbalance across intervention and control groups raise concerns over the reliability of the findings or their generalisability to heavy drinking patients in general.

It may be no coincidence that the two studies ([1 2](#)) which recorded among the greatest impacts at six and 12 months concerned patients admitted due to serious injuries rather than [illnesses](#); in both it seems virtually certain that many had been injured as a result of fairly extreme drinking. The interventions in these studies were well placed to build on this salutary experience.

However, hindsight rationalisation of why some studies recorded an impact, but others none or a minor one, can only be speculative. The certain conclusion is that impacts on drinking can happen, but are inconsistent and often lacking. Given the nature of the studies, it is also unclear whether such impacts as there were would be replicated in normal practice.

UK studies

Detailed study by study in the [background notes](#), of the six UK studies of hospital inpatients known to Findings, [one](#) involving mainly very heavily drinking women (the only study where most patients were women) found substantially greater drinking reductions after counselling than after screening only. Methodological issues cast some doubt over the validity of the findings or the conclusion that they were caused by a brief intervention. Perhaps the greatest concern was that during intervention phases of the study patients were being treated by nurses newly trained in dealing with drink problems. Conceivably it was this rather than the brief interventions which led to the greater reductions in drinking than before the nurses were trained. In [another study](#), one of six measures of drinking and related problems was reduced significantly more after brief advice than after screening only – a small extra reduction in average daily alcohol intake during a typical month. If anything the reduction was slightly greater after just five minutes of advice than after more extended counselling. Substantial loss to the study of positive-screen patients and the fact that some were from primary care mean the results may be an unreliable indication of the impact of brief advice on hospital patients as a whole, and had adjustment been made for multiple tests (allowing for the greater risk that one would reach significance purely by chance), the one in six which was found significant might no longer have been.

The remaining four studies found no significant extra reductions in consumption relative to just screening the patients and normal care on the ward ([1 2 3](#)), or in [one study](#) also handing them an alcohol advice booklet. Related problems were also unaffected, with the exception of [a study](#) which used an unvalidated measure and was vulnerable to 'regression to the mean', and [another](#) which reported an isolated finding that more intervention patients felt their alcohol-related ill-health had improved. This too might have failed to be significant if the study had adjusted for its multiple tests.

Policy and practice in the UK

Alcohol screening and brief intervention policy in Britain focuses more on primary care and accident and emergency departments than general hospitals, though hospital wards and, by implication, those like gastro-intestinal wards most likely to see heavy drinkers, are among the sites where investing health resources in such work has been legitimised by Britain's [National Institute for Health and Clinical Excellence](#) (NICE). Its [guidance](#) insists that health service commissioners and managers "must" provide the required training, resources and time to implement these programmes.

Reflecting this advice, the [2012 national alcohol strategy](#) called for programmes to identify hazardous drinkers in NHS services. It was specific about how this will be done in primary care by GPs and pharmacists, where alcohol identification and any subsequent brief advice will be incorporated in the [NHS Health Check](#) for adults aged 40 to 75 from April 2013, adding to checks for heart disease, stroke, kidney disease and diabetes. Accident and emergency departments and hospitals in general were encouraged to also check for and offer brief advice about hazardous drinking, in the case of hospitals by employing alcohol liaison nurses who will also manage patients with alcohol problems, liaise with community alcohol and other specialist services, and support other healthcare workers in the hospital.

Even before this strategy was released, progress was being made along these lines. For example, in 2010 a [survey](#) of alcohol leads in London-based multi-agency alcohol strategy partnerships found that most partnerships had commissioned alcohol liaison nurses in their hospitals. However, these were inadequately supported by hospital staff (in terms of screening and referrals) and were not well supported by alcohol services outside the hospital. They tended to spend most of their time working with dependent as opposed to harmful/hazardous drinkers, effectively becoming a specialist treatment resource rather than a public health resource addressing the bulk of risky drinking and alcohol-related harm. To an extent this was also found in [eight case studies](#) of alcohol health worker posts across England, where at only one hospital did the majority of client work concern identification and brief advice as opposed to medical work with problem drinkers such as detoxification. However, at several sites the aim was that ward staff trained by the workers would handle identification and brief advice. Though valuable in its own right, the competing demands of delivering specialist alcohol treatment services is bound to erode the focus on the public health role of widespread brief intervention.

Practical guidance on alcohol brief interventions (but not necessarily specifically in respect of hospital inpatients) is available from a [Public Health England's e-learning centre](#) and in guides from the [American College of Surgeons](#) and from the [American Public Health Association](#).

Run [this search](#) on the Findings site for more studies of brief alcohol interventions with hospital patients.

Thanks for prompting this updated entry and for their comments to Andrew McAuley of NHS Health Scotland and for their comments on the original entry to Jean McQueen of the Ayr Clinic, Partnerships in Care, Scotland. Commentators bear no responsibility for the text including the interpretations and any remaining errors.

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