


# DRUG & ALCOHOL FINDINGS *Review analysis*

This entry is our analysis of a review or synthesis of research findings considered particularly relevant to improving outcomes from drug or alcohol interventions in the UK. The original review 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 review. Below is a commentary from Drug and Alcohol Findings.

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## ▶ [Interventions for reducing alcohol consumption among general hospital inpatient heavy alcohol users: a systematic review.](#)

**Mdege N.D., Fayter D., Watson J.M. et al.**

**Drug and Alcohol Dependence: 2013, 131(1-2), p. 1-22.**

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*Review of studies of interventions for heavy drinkers identified among general hospital inpatients concluded that multi-session brief interventions could reduce drinking. "Could" is an important qualifier: yet to be pinned down is why though sometimes they work, brief interventions often fail to produce significant effects.*

**SUMMARY** Health care professionals in hospitals routinely encounter risky-drinking patients with whom it may be possible to intervene. Making links between being admitted to hospital for an alcohol-related condition and the drinking which helped cause that admission could catalyse the impact of interventions among patients drinking in a non-dependent but unhealthy manner, and those who do not see their drinking as problematic.

To assess these propositions, reviewers searched for studies of all types of interventions (not just brief



**Key points**

interventions) for heavy drinking among adult general hospital inpatients admitted for reasons other than alcohol use treatment, but whose drinking had been identified as a problem during their admission. Results were analysed separately for different intervention lengths and formats. Studies were included as long they featured a comparison or **control** group not offered the evaluated intervention, against whom its effects could be benchmarked.

All 22 studies totalling 5307 participants evaluated psychosocial interventions targeting either drinking or help-seeking for problem drinking, and nearly all concerned **brief interventions** of one to three sessions rather than fully-fledged therapeutic programmes. Of these studies, 17 had effectively allocated patients at random to the intervention versus comparator procedures. The analysis was confined to outcomes assessed from six to 12 months after the intervention. Differences between the studies, particularly in the outcomes they measured, precluded amalgamating their findings into a composite outcome.

## Main findings

In 12 studies a **single-session** brief intervention was compared to usual care or to no intervention. Though some studies found positive impacts, others found no statistically significant benefits in respect of alcohol consumption (based on participants' own accounts – 'self-reported') and related problems, well-being or quality of life, and none found impacts on biological indicators of heavy drinking or use of health services. However, several studies suggested these interventions could bolster motivation or readiness to moderate one's drinking.

Five studies made similar comparisons, but the interventions spanned **two or three sessions** or contacts with an interventionist. Results suggest these more extended interventions could help reduce self-reported alcohol consumption, though less clearly among alcohol-dependent patients. On other outcomes, including well-being, quality of life, and injuries and deaths, no significant benefits were found either for dependent or non-dependent patients.

### From summary and commentary

Analysts reviewed studies of interventions for heavy drinkers identified among adult general hospital inpatients admitted for reasons other than the treatment of their drinking problems.

They found that multi-session brief interventions might reduce drinking, while single sessions did not, but did boost motivation or readiness to moderate drinking.

Along with another review and detailed analysis of UK studies, the findings show that while brief interventions can work, often they fail to produce significant effects on the drinking and related problems of hospital inpatients.

Two studies compared usual care with a **self-help booklet** offering information on drinking. There were no clear intervention benefits in respect of alcohol consumption or other outcomes.

Five studies explored whether a brief intervention (with or without self-help literature) would improve on self-help literature alone. No statistically significant benefits were found in respect of alcohol consumption, well-being, quality of life, use of health services, or deaths. However, one study found brief-intervention patients gained greater confidence in their abilities to control their drinking. Another found greater reductions in drink-driving arrests after brief intervention than when patients had simply been handed a list of alcohol treatment services.

Several studies compared brief interventions differing in the number of sessions or in their content. Only isolated statistically significant advantages emerged for any of the alternatives.

### The authors' conclusions

Multi-session brief interventions might reduce the drinking of hospital inpatients, especially those not dependent on alcohol. However, differences between the studies meant this conclusion could not be based on a quantitative amalgamation of findings; more evidence is needed to support more robust conclusions. While the review searched for psychosocial interventions of any kind, nearly all involved brief interventions, leaving it unclear whether fully-fledged psychosocial treatment programmes would be more effective.

Though these did not consistently affect drinking, single-session brief interventions did boost motivation or readiness to moderate drinking. Possibly multi-session brief interventions work by in the first session bolstering motivation or readiness, while follow-up sessions help turn this resolve into reduced drinking.

Commonly it is hoped that alcohol interventions among hospital patients will generate cost-savings by reducing use of health services, especially alcohol-related admissions. No such effect was found. However, it could take well over the 12 months assessed by the review before reduced drinking affects use of health services.

There were no statistically significant effects on well-being or quality of life, nor on measures of drinking plus related problems such as the [AUDIT questionnaire](#). Just two studies assessed impacts on crime, one of which found brief interventions reduced drink-driving arrests.

A [previous review](#) of brief interventions for heavy drinkers in general hospital wards found these reduced drinking as assessed six and nine months later, but not 12 months. That review did not divide the studies according to the number of sessions. When the featured review did so, it found impacts were concentrated in studies which trialled multi-session brief interventions.

Though the featured review tentatively favoured multi-session over single-session interventions, in the few studies which directly compared these options there were generally no statistically significant advantages for the longer intervention. This suggests that the apparent advantages of multi-session interventions might not be due to their being longer, but to other features of the studies which trialled these.

The international literature assessed by the featured review and by [its predecessor](#) and results from the UK ([below](#)) give little to reason to rely on hospital inpatient settings for reducing drinking and related problems through brief interventions, and suggest screening alone and/or handing over an advice booklet is often just as effective. On the other hand, these interventions *can* reduce drinking, and in some studies substantially reduced risk or harm. Possibly brief interventions do on average have a small impact but this becomes noticeable and breaches conventions criteria for statistical significance only in particularly conducive circumstances. 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.

### Multi-session interventions work in USA and Taiwan

For the 12 months it accepted as the minimum adequate follow-up period, the featured review's tentative conclusion that multi-session brief interventions could reduce drinking rested on the two studies which found statistically significant impacts. They showed what can be achieved when circumstances are conducive, but featured more expert and closely controlled interventions than would be found in normal practice.

In one an intervention from a trained psychologist at a [US trauma centre](#) generated substantial extra drinking reductions, presumably by capitalising on the major alcohol-related injuries sustained by many of the patients. Attribution of the findings to the intervention was clouded by an important difference in pre-admission drinking between patients offered and not offered a brief intervention, and by the fact that nearly half the patients who joined the study could not be re-assessed. Assuming the intervention did cause the reductions, it may only have done so due to an unusually expert delivery and a distinctively conducive location.

The second study was conducted [in Taiwan](#) among male patients only. There the intervention may have benefited from an unusually high attendance for a second counselling session and from a highly trained and supervised set of interventionists. Whatever the reason, drinking reductions were significantly greater among patients offered brief advice, weekly consumption falling from on average about 92 UK units (each about 8g alcohol) to 49 units among patients offered advice but only to 74 units among their usual-care comparators. There were even greater extra drinking reductions (35 UK units more than comparison patients) among men

who met criteria for alcohol dependence. The authors cautioned that it was unclear whether these results would be replicated in other cultures and among women.

**Unfold**  the supplementary text for more on these two studies.

## UK studies

Of the six UK studies of hospital inpatients known to Findings (study-by-study details in these [background notes](#) to an earlier review), just two found significant drinking reductions, though in others there were lesser effects.

One involving mainly very heavily drinking 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. Intervention patients were treated by nurses newly trained in dealing with drink problems. Conceivably it was this rather than the introduction of brief interventions which led to 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. Multiple comparisons between the outcomes for brief advice and screening-only patients raised the risk that one would be statistically significant purely by chance. Had this been adjusted for, the one in six which was statistically 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 whose findings may have been biased by higher pre-intervention drinking in the intervention group, 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.

The featured review commented that the studies it was able to find left it unclear whether fully-fledged psychosocial treatment programmes would be more effective than brief interventions. A [study in England](#) has suggested that the main problem would be persuading even very heavy drinkers to accept treatment when that was not why they came to the hospital.

## 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 especially those most likely to see heavy drinkers, are among the sites where investing in such work has been legitimised by Britain's [National Institute for Health and Care Excellence](#) (NICE). Its [guidance](#) insists health service commissioners and managers "must" provide the required training, resources and time to implement these programmes, including in hospital wards.

Reflecting this advice, the [2012 national alcohol strategy](#) from the UK government called for programmes to identify hazardous drinkers in NHS services. Accident and emergency departments and hospitals in general were encouraged to check for and offer brief advice about hazardous drinking, in the case of hospitals by employing alcohol liaison nurses who were also to 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 London alcohol strategy partnerships found most 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 addressing the bulk of non-dependent risky drinking. To an extent this was also found in [eight case studies](#) of alcohol health worker posts across England. However, at several sites the aim was that ward staff trained by the alcohol specialists would identify and briefly advise risky drinkers.

Though valuable in its own right, the competing demands of delivering specialist alcohol treatment services is bound to shift the focus from the public health role of widespread brief intervention, and in practice it seems very few patients not obviously dependent may be offered advice. For example, on three inner-London general hospital inpatient wards, despite being encouraged to screen all new admissions for risky drinking, [staff screened](#) under a third. This shortfall in identifying risky drinkers meant that just 4% of all adult admissions completed a brief intervention. Generally they were the most obviously problematic drinkers in need of specialist treatment, confounding hopes that screening would act as a public health measure tackling low-level but pervasive hazardous drinking.

Scottish [national alcohol policy](#) has prioritised screening and brief intervention in primary care, emergency departments and antenatal clinics rather than general inpatient wards, though [current standards](#) call for this

core work to be extended to other arenas, citing the inclusion of hospital wards in [guidance](#) from the National Institute for Health and Care Excellence.

Practical guidance on alcohol brief interventions is available from [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](#) of the Effectiveness Bank for more studies of brief alcohol interventions with hospital patients. For more on brief alcohol interventions in general see the Effectiveness Bank [hot topic](#) and [row one](#) of the Alcohol Treatment Matrix.

Last revised 21 March 2016. First uploaded 11 March 2016

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