

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.

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▶ [Usefulness of brief intervention for patients admitted to emergency services for acute alcohol intoxication.](#)



Schwan R., Di Patritio P., Albuissou E. et al.
European Journal of Emergency Medicine: 2012, 19, p. 384–388.

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Brief interventions conducted by alcohol treatment specialists reduced alcohol-affected readmission rate by nearly half among patients admitted to a French emergency department when drunk or in need of withdrawal.

SUMMARY Research shows that [screening and brief intervention](#) programmes to identify and briefly counsel emergency department patients with alcohol problems are feasible and accepted by patients, but effects are limited. However, few studies have examined the impacts of more complex alcohol interventions.

The research group responsible for the featured study had previously established that alcohol intoxication among emergency department patients should be treated as suggestive of alcohol abuse or dependence requiring specialised assessment and therapy. Accordingly, the emergency and psychiatry departments of the University Medical School of Clermont-Ferrand in France set up an alcoholism liaison group to organise care for these patients. They devised an intensive case management programme which included training emergency staff, care protocols, and a cognitive-behavioural intervention delivered by specially trained alcohol liaison group staff.

The featured study evaluated the effectiveness of this programme compared to standard care among adult emergency patients diagnosed as intoxicated on alcohol ('drunk') or in need of withdrawal, regardless of whether these were the principal reasons for their visits. The programme was delivered by an alcoholism liaison group composed of a psychiatrist, nurse, and psychologist qualified in addiction treatment, who were available to see patients in the department from 8am to 11am in the morning, seven days a week. Emergency doctors encouraged patients to stay until that time to benefit from the brief intervention.

Brief counselling aimed to raise patients' awareness of the negative consequences of their drinking in order to generate ambivalence about continuing or a plan to change. [FRAMES](#) principles informed the intervention's content and style. Aware that the physician's emphasis on alcohol may not match the patient's priorities, patients were asked to rank the importance of their current problems such as workplace, social, relationship, or health difficulties. According to their responses, specific strategies were offered. Using cognitive-behavioural techniques, patients' thinking and beliefs about drinking were analysed and fed back to the patients, who were invited to correct misapprehensions. These interventions were carried out twice: after assessment, by the liaison group nurse; and half an hour later by the physician, giving patients time to reflect and accept the need for change. Each session lasted 10–15 minutes. Patients were also handed an alcohol self-help booklet and if appropriate, the physician might propose referral for specialised inpatient or outpatient treatment. Liaison group staff made appointments for follow-on outpatient treatment and transferred medical records.

Standard care consisted of medical intervention for acute alcohol intoxication or withdrawal and psychiatric care if indicated.

Rather than randomly allocating patients, all adult emergency room attendees who during a single month were eligible for and agreed to join the study underwent usual care. Over the next month staff were trained in the intervention, then over the following month this was delivered, again to all eligible patients who agreed to join the study. The effect was to expose only the intervention patients not just to the intervention, but also to any effect training and other procedures had on staff. Over the year after their discharge, records were monitored to check if the same patient had returned to the emergency unit once again intoxicated or in need of withdrawal. At issue was whether intervention patients were less likely to return with these alcohol-related conditions. The unit concerned was the sole emergency department taking admissions within a radius of about 40km. To join the study patients had to live in this area.

All but 12 of the 215 patients who presented at the emergency room and met the study's inclusion criteria joined the study, 97 during the standard care month, 106 during the intervention month. Most were middle-aged men admitted while drunk. In the intervention group a quarter were in need of withdrawal but in the standard care group **18%**.

Main findings

71% of the intervention group received the intended intervention, and 59% were referred for specialist alcohol treatment compared to 43% of usual-care patients.

Over the following year 57 of the 97 usual-care patients were readmitted with the same alcohol-related conditions. Had this 59% readmission rate applied to intervention patients, 62 would have been readmitted. In fact, just 34 were. This readmission rate of 35% was 45% lower than among usual care patients.

Key points
From summary and commentary

A French emergency department organised brief interventions by alcohol treatment specialists for patients admitted when drunk or in need of withdrawal.

Compared to standard care, over the following year proportionately 45% fewer patients offered brief interventions returned to the department with the same alcohol-related conditions.

The study adds to others which show that emergency/trauma units can reduce their future workloads by offering brief interventions to patients with medical or other reasons to moderate their drinking.

readmission rate of 32% was 45% lower than among usual-care patients, a highly statistically significant difference ► [chart](#).

In the intervention group only, patients referred for specialised care were more likely than those who had not been to return to the emergency department within a year drunk or in need of withdrawal.

The authors' conclusions

Many problem-drinking patients are not (or not yet) alcohol-dependent. Emergency admission is often the first public indicator of the harmful effects of their drinking. The interval between recovering clear-headedness after intoxication and discharge offers an opportunity to intervene. The study's findings suggest it can successfully be used to treat problem drinking. It is hoped that these results will help reverse negative attitudes to patients with alcohol problems, and counter the scepticism and disbelief in treatment effectiveness sometimes encountered among emergency staff.

Consistent with a [US study](#), the one-year readmission rate decreased by 45%. One novelty in the intervention was that it was provided not by liaison psychiatry, but by a specialised liaison service of addiction medicine implemented on the emergency ward – professionals whose specific role is to respond to patients with alcohol problems.

Strengths of the study include: enrolling nearly all the patients admitted to the emergency department for drunkenness or withdrawal during the two months; no lengthy research assessments, which can overshadow interventions; biological markers of heavy drinking to test whether the two sets of patients were equivalent in their consumption; and monitoring the hospital readmissions of all these patients over the following year. A limitation is that the usual-care [control](#) group was not recruited at the same time as the intervention group, and there may have been unmeasured differences between the patients. However, they did not differ on biological markers of intoxication or chronic heavy drinking. An advantage of the study's design was that the entire process of training and setting up as well as delivering the intervention was reflected in the results. Because it occurred after the usual-care period, these procedures could not 'spill over' to affect how usual-care patients were treated.

FINDINGS COMMENTARY The featured study adds France to the USA and the UK in the list of countries where studies have shown emergency departments or trauma units can reduce their future workloads by offering brief interventions to heavy drinkers. However, the specific contexts from which these findings emerged means they cannot be assumed to generalise to less severe risky drinkers not yet experiencing noticeable harm from their drinking and identified solely through screening questionnaires. Most or all of the patients in the studies had been admitted after an alcohol-related incident, and generally knew or could readily be shown that their attendance was due to getting very drunk or to regular heavy drinking. In all the studies too, patients had been identified partly or wholly by actual or possible alcohol-related injuries or conditions or blood tests indicative of heavy drinking. Only among patients likely to require repeat emergency care due to heavy drinking can it be shown that an intervention reduces such readmissions; no effect [can be found](#) among patients for whom this was an atypical occurrence unlikely to be repeated. These conclusions are expanded on below.

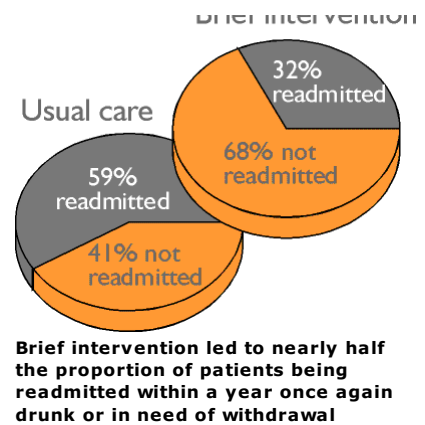
About the featured study

Several methodological features should have given the intervention a good chance to generate improvement overall and in relation to usual care, and in the event, the impact was substantial and highly statistically significant. The study avoided lengthy initial research assessments, did not conduct in-person follow-up assessments, and made sure that during the usual-care month the emergency department was unaffected by the procedures and training later implemented. Without these features, responses to the assessments may have overshadowed the impact of the brief intervention, and staff trained in the interventions and sensitised to the issues might unintentionally have delivered something more than usual care. Rather than screening results indicative of risky drinking, the study adopted criteria which would have identified more severe drinkers, reflected in the high rate of referral to specialised treatment and the fact that without specific intervention, most returned with the same alcohol-related problems within the next year. In a set of patients less prone to readmission it would have been more difficult to show that the readmission rate had been reduced. Patients were probably already aware, or could readily be made aware, that their heavy drinking helped account for their finding themselves taken by ambulance or police to the emergency unit, possibly a good starting point for intervention.

The measure used to assess improvements – further alcohol-related admissions – is one immediately meaningful to the authorities which would have to fund such interventions, and to the staff involved in making sure they happen. The resulting reduction in readmissions should have helped contain or reduce emergency department costs, savings which might have been offset by the intervention promoting entry into specialist treatment, though such treatment could itself have generated cost-saving benefits. Involving the attendance of specialised staff three hours a day, seven days a week, the intervention itself cannot have been inexpensive. It did however avoid the need for screening for risky drinking as a separate procedure. The downside to not screening is that less obviously problematic drinkers would not have been identified and offered advice. Also missed will have been patients who did not stay on the unit until the morning, though in practice it seems this was not a problem, perhaps because the incidents being dealt with are concentrated in late-night and early-morning hours. How costs and savings panned out is not assessed, but it seems clear that the resources devoted to the intervention meant patients became less prone to alcohol-related medical emergencies or to behaviour which led police to bring them to the emergency unit, and more were introduced to the possibility of treatment for their drinking.

For several reasons the intervention may have been more effective than usual. It was conducted by alcohol treatment specialists, presumably from the same service which provided outpatient follow-on care. This might have given the intervention greater credibility with patients and improved its quality, while helping to remove misconceptions about and barriers to follow-on treatment. With drinking part of their core business, it also [seems likely](#) that these specialists were more able to maintain a positive and accepting attitude than emergency department staff, attributes [which may](#) have contributed to the intervention's effectiveness. Though in principle emergency staff may see the need to tackle drinking, even in units which volunteered for a [major national study](#) in England, "implementation of screening and brief intervention was 'limited' in most emergency departments due to workload pressures, lack of time, perceived lack of importance of alcohol in the emergency department, high staff turnover, competing priorities, and feeling forced to take on extra work."

Also the intervention adopted the multi-brief sessions format [found](#) across primary care brief intervention trials to be



Also the intervention adopted the multi-brief sessions format [found](#) across primary care brief intervention trials to be more effective than single sessions. Delivering these sessions just half an hour apart and during the initial admission helped avoid the drop-out levels seen when patients are invited to return after discharge; the result was that 7 in 10 received the intended intervention. For brief interventions, a novel feature was to ask patients to say what for them is their priority problem and to respond to this, accepting that it might not be drinking. A welcoming attitude and starting from where the alcohol-dependent emergency patient 'is at' [was pioneered](#) in the 1950s at the Massachusetts General Hospital. As in the featured study, alcohol specialists 'outreached' from their clinic, initiating at the emergency patient's bedside what might be the start of treatment to resolve their drinking problems. The initial approach "stressed practical actions responsive to the patient's expressed needs, such as help with housing, money, getting a meal and a shave". The result was greatly improved attendance and retention at the alcohol clinic.

A welcoming attitude and starting from where the alcohol-dependent emergency patient 'is at' was pioneered in the 1950s

The authors' cautioned that this was not a randomised trial and that patients allocated to usual care versus the intervention may have differed in unmeasured ways. To this can be added the fact that there seems to have been no attempt to adjust for the differences that were measured. Among these (according to table 1 but not to the main text) was a large and near statistically significant difference in the proportions of patients in need of detoxification from alcohol when admitted to the emergency unit – 14% among usual-care patients but at 25%, nearly twice this among intervention patients. Adding further uncertainty about the equivalence of the two patient groups is that they were recruited two months apart. Depending on the time of year, there could have been relevant differences in the reasons for becoming drunk and taken to the emergency department which would affect the likelihood that this event would be repeated within a year.

Related studies

The featured study is one of a handful conducted in emergency departments which assessed readmissions, generally finding these reduced by brief advice. A relevant review and the studies are described below.

A [review](#) has assessed the degree which studies have found brief alcohol interventions reduce downstream health service usage. Among the three studies of interventions in emergency departments which recorded return to those departments, all found reduced readmission rates in patients offered brief interventions, and in two studies this reduction was statistically significant. One of the three studies to find a significant impact was the [US study](#) seen by the authors of the featured study as producing a similar finding. The other two in fact derived from the same trial at an inner-London emergency department (1 2).

Rather than attempting to approach all relevant patients in the trauma unit, the [US study](#) recruited inpatients admitted for at least 24 hours. They had been identified on the basis of various combinations of blood alcohol level, a biological indicator of heavy drinking, and screening scores. The 30-minute intervention was delivered not by the hospital's medical staff but by a psychologist trained in brief interventions, and was followed up a month later by a handwritten letter. Given the nature of the injuries sustained by these patients (falls and traffic accidents accounted for about half), it seems likely that many were related to recent heavy drinking, a persuasive hook for the intervention. Nearly half had previously been counselled about their drinking – further indication that, as in the featured study, this was not a sample of low-level risky drinkers, but tended to the more severe end of the range. Over the following year, records showed that compared to patients not offered the intervention, 47% fewer intervention patients re-appeared at the trauma centre or emergency department with new injuries. Over three years, 48% fewer were admitted to hospital due to injuries. Despite their large size these differences did not reach the conventional criterion for statistical significance, but in the context of the study's other findings it remained probable that they represented a real effect of the intervention. Extrapolating these findings to all adult US emergency patients, it [was estimated](#) that over the following three years the programme would net \$89 savings (down from \$689 to \$600) per screened patient due to reduced emergency care and hospital readmissions. Though savings were not large, the expenditure needed to achieve them was small, so for each \$ spent nearly \$4 would be saved in health care costs. However, even if this was the case among the heavy drinking patients admitted for at least a day to the trauma unit, it would not necessarily hold true across all risky-drinking emergency department patients.

In London, based on their own accounts, over the following 12 months patients randomly allocated after screening to an appointment with an alcohol adviser [had made](#) slightly fewer visits to an emergency unit than those simply handed an alcohol advice leaflet and told by emergency staff that their drinking might be harmful. However, the difference of on average 0.90 attendances versus 0.97 per patient was statistically insignificant, and the number of times patients had needed an ambulance was virtually the same regardless of intervention. This data was based on fewer than half the patients in the study. But across all the patients, the unit's attendance records [revealed](#) that patients allocated to advice had returned nearly 30% fewer times than patients simply handed the leaflet – a difference which was statistically significant.

Though not reliant on following patients up, this finding too suffered from loss of patients to the study; of those who had screened positive for risky drinking, only about half entered the trial. Notably, the results reflected the impact of adding an offer of further advice (which only a minority took up) to the warning from unit staff, itself a potentially powerful (very) brief intervention. Without this systematically applied warning the advantage gained by the offer of advice might have been greater. On the other hand, the trial was undertaken at a department with an unusually strong commitment to addressing drinking and established procedures to train and motivate staff. As in the featured study, the patients were not risky drinkers identified solely through screening, but were screened only if emergency doctors had reason to believe they had a drinking problem. Only patients who drank heavily at least once a week or who felt their attendance was alcohol-related were included in the study. In practice, most accepted that their drinking had contributed to the condition for which they were seeking treatment, and on average each admitted to drinking 21 UK units of alcohol (about 168gm) on their heaviest drinking days.

More on emergency department brief alcohol intervention trials by running [this search](#) in the Effectiveness Bank.

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STUDY 2013 Effectiveness of screening and brief alcohol intervention in primary care (SIPS trial): pragmatic cluster randomised controlled trial