

DRUG & ALCOHOL FINDINGS *Review analysis*

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▶ [Emergency department-based brief interventions for individuals with substance-related problems: A review of effectiveness.](#)

Fountain J., Ferri M., Bo A.
European Monitoring Centre for Drugs and Drug Addiction, 2015.



Scant research into brief interventions targeting harmful drug use in emergency departments prevents firm conclusions being drawn about their effectiveness. But, recognised benefits for alcohol, and likely cost-effectiveness, suggest that brief interventions may be appropriate within emergency care settings.

SUMMARY Brief interventions have become increasingly popular because they can be delivered in a variety of settings, by a range of workers (after training), and in a short time frame – three factors combining to keep costs relatively low.

There are a number of brief intervention models. One commonly used [follows](#) the '5As': ask, advise, assess, assist and arrange.

Brief interventions in emergency departments offer a 'window of opportunity' to engage with people with alcohol and/or drug use problems who might otherwise never receive any form of assessment, referral or intervention. This paper assesses the effectiveness of brief interventions in this setting for substance use, with a focus on identifying people with drug problems, supporting behavioural change, and improving referrals to specialist treatment.

The authors identified English-language [systematic reviews](#) and reports of studies published between 2000 and 2014 which had randomly allocated emergency department patients to brief interventions targeted at substance use versus alternative procedures. Substance use included alcohol, tobacco and illicit drugs. Brief interventions were defined as interventions over a short time frame (typically ranging from 5 to 30 minutes) which:

- were delivered to individuals or small groups and aimed not solely to prevent substance use, but also to delay initiation, reduce its intensification or prevent escalation into problematic use
- did not provide treatment for substance use (eg, substitution or maintenance treatment, detoxification or psychosocial counselling)
- did not target those who are substance dependent

Main findings

Five [systematic reviews](#) were identified, analysing a total of 78 studies. Three of these focused solely on young people, while the rest covered the general population. All five were concerned with alcohol – three with alcohol alone and two with alcohol and drugs. To varying degrees, the [systematic reviews](#) discussed the quality of the studies they included, pointing out that the poor quality of some and the methodological variations among them meant that firm conclusions about the effectiveness of brief interventions in emergency departments could not be drawn. Review authors suggested the need for further research, development and testing in emergency departments among different populations, and one [called for](#) the methodologies of future studies to be more consistent, to support easier comparisons, "decisive conclusions and policy changes".

The results of 16 studies were reviewed: brief interventions were effective in six; initially effective in two, with diminished effects at the 12-month follow-up; partially effective in four; and ineffective in four. 10 of the studies were based in the United States (US), two in the United Kingdom (UK), two in Australia, one in Poland and one in Switzerland. Most studies (10 out of 16) focussed on drinking, four focussed on drug use, and two targeted both drinking and drugs.

The effects of brief interventions on herbal cannabis use were examined in two studies (one in combination with alcohol consumption). In the [first](#), herbal cannabis use declined between the start of the study and the six-month follow-up for participants receiving either a single-session motivational intervention or a personalised feedback report. At the 12-month follow-up, only motivational intervention participants had continued to reduce their use of herbal cannabis, something which appeared to be primarily a function of decreased alcohol use. In the [second](#) study, measures of binge drinking, and combined herbal cannabis and drinking significantly decreased for the brief intervention group compared with the group receiving standard care at the 12-month follow-up. There were no differences in negative consequences or injuries between the two groups. While the brief intervention appeared to facilitate reductions in risky alcohol and herbal cannabis use among emergency department patients, expected reductions in the negative consequences of use (such as injury) were not found at 12 months.

One study [measured](#) attitudes and intentions related to changing drug use and HIV-risk behaviour following one of two computerised brief interventions lasting 30 minutes, or enhanced usual care. Immediately after the intervention, participants receiving an intervener-led computerised brief intervention showed significant improvements in confidence and intentions to reduce drug use compared with enhanced usual care. Computerised brief intervention patients

reported higher ratings of importance [of cutting down or quitting drugs], readiness [to cut down or to quit]

Key points
 From summary and commentary

A review aiming to explore whether brief interventions in emergency departments could be helpful for identifying individuals with drug problems, supporting behavioural change, and increasing referrals to specialist treatment.

Few studies focussed on drugs and alcohol, or drugs alone, indicating a need for further research.

But, the absence of reported adverse effects, the likely cost-effectiveness, and the evidence of success with alcohol, suggest that brief interventions may be appropriate within emergency care settings.

reported higher ratings of importance [of cutting down or quitting drugs], readiness [to cut down or to quit], confidence and help-seeking overall.

Several commentators, including authors of the reviews and trials cited in this report, have highlighted the challenges of implementing brief interventions in emergency departments. These include: constraints on staff time and the perceived need to focus on the immediate needs of the patient; ethical issues, including consent to participate, for example from young people; potential participants refusing to participate or not being able to participate; concerns about health insurance [in countries without universal healthcare], because some insurance companies do not cover an injury caused by being under the influence of drugs or alcohol; and lack of confidence among emergency department staff, possibly as a result of inadequate training.

The rates of people leaving studies, not participating in follow-ups, or not being available until the end of studies varied widely. At 12 months, the lowest rate was 16% and the highest was 69%.

Many of the studies reported improvements among participants randomly allocated to a **control** group. This could be accounted for by (sometimes lengthy) assessment procedures which even without further intervention could motivate people to change their drinking or drug use behaviours. It could also be explained by people making a link between their substance use and their visit to the emergency department, again prompting them to change their behaviours.

Cost-effectiveness was evaluated in three trials, with positive outcomes in two of these:

- One trial **found** no significant difference in costs or effectiveness at the 12-month follow-up between an alcohol health worker who delivered a brief intervention [and an information-only comparison group]. It also found that there was a strong case for the intervention being acceptable to decision-makers, given the brevity of the treatment, low cost, and short-term reduction in amount of alcohol consumed.
- Another **calculated** that screening and mailing personalised feedback about alcohol consumption was a good economic investment, especially relative to the cost of face-to-face brief interventions (going by the cost calculated in a comparable study).

The authors' conclusions

There has been little investigation into the effectiveness of brief interventions for tackling drug use in emergency departments. This review found potential benefits of brief interventions, but a definitive statement about effectiveness of interventions for drug use could not be made given that the focus of many of the studies was on alcohol, and covered different population groups (eg, age groups), and patients with different levels of substance use.

High rates of participant 'drop-out' were observed across the studies. This can introduce significant bias – patients who have less severe problems or patients who are already motivated to change their drinking behaviour may be more likely to agree to participate.

The potential benefits of brief interventions for drug users warrants further study. In the absence of this, it may be reasonable to assume that people with drug-related problems would benefit from brief interventions that target (at least) their alcohol intake, and that given what is already known about the feasibility of delivery by emergency department personnel, the absence of reported adverse effects, and the likely cost-effectiveness, brief interventions may be appropriate within emergency department settings.

FINDINGS COMMENTARY Evidence gathered and analysed in the featured review suggests brief interventions for substance use could be worthwhile in emergency department settings. Nothing more definitive could be said due to the diversity of the studies (including differences of quality among studies, and differences in the groups of people who participated), and, in the case of interventions targeted at non-alcohol drug use, the overall shortage of studies (only four of 16 concerned with drugs, and two with drugs and alcohol).

In the UK, GP's surgeries are the principal venues for brief interventions, and have been the principal focus of research; subsequently, there is a **lack of** high quality evidence about brief interventions in emergency department settings. The £3.2 million SIPS project funded by the UK Department of Health in 2006 – intended to be the definitive trial of brief alcohol interventions in **emergency departments** (along with **GP's surgeries** and **probation offices**) – found that expected *extra impacts* of more extensive advice and counselling did not materialise. The trials seemed to justify merely offering written information and a warning about the patient's risky drinking. An earlier (smaller scale) study in a London emergency department **did find** drinking reductions following routine referral for brief alcohol counselling, but in a department with an unusually strong commitment to addressing drinking and established procedures to train and motivate staff, boosting its capacity to overcome known **barriers** to implementing brief interventions in these and other environments.

Research into brief interventions for non-alcohol drug use is sparse. A **US study** set about to fill this gap by trialling (almost) universal screening, brief intervention, and referral to treatment for recent illegal drug use as well as heavy drinking at a variety of hospital, primary care and community health centres. The plan (implemented in nearly two-thirds of cases) was that positive screen patients would be given brief advice or, for the more severely affected minority, a short course of therapy or referral for specialist treatment. Among people recommended for brief treatment or referral to specialist treatment, self-reported improvements in general health, mental health, employment, housing status, and criminal behaviour were found. The key outcome measure was how many patients who had recently drunk heavily or illegally used drugs were still doing so six months later. The proportion drinking heavily was cut by more than half and using cannabis by almost two thirds. Usage of less common drugs including heroin, cocaine and methamphetamine had been reduced by similar or greater amounts. Among the more severe cases, there were accompanying gains in quality of life and social functioning. A big question mark over the reported effectiveness, however, is the absence of a comparison group (of people either not screened, or screened but not offered further help). As the Effectiveness Bank **commentary** of the study describes, substance use **can fall substantially** simply as a result of being screened, assessed, identified as having a problem, subject to research procedures, or as over time problems resolve.

Research into brief interventions for non-alcohol drug use is sparse

The author of the featured study suggested that, in the absence of clear evidence for brief interventions tackling drug use alone, people with drug-related problems could possibly benefit from brief interventions that target (at least) their alcohol intake. An issue which **cannot yet be decided** on effectiveness grounds is whether to *commission* brief intervention programmes for alcohol, alcohol plus drugs, or lifestyle issues in general. It could be that spreading the focus detracts from impacts on drinking, or augments these because of the links between alcohol, smoking, drugs, stress and exercise. Merging alcohol into a broader lifestyle programme could spread screening and advice wider by defusing discomfort at focusing on drinking, or alcohol could get lost in the mix. What is the UK brief intervention

derusing discomfort at focusing on drinking, or alcohol could get lost in the mix. When in the UK brief intervention practitioners and researchers have got together, the pros and cons of integrating this work into broader lifestyle programmes has been high on the agenda. In 2011 [they saw](#) these as offering "real opportunities for the further integration of alcohol" into contacts between patients and staff, but recognised "there may be some risk of 'diluting' alcohol messages." In the end the feeling was that "alcohol-specific brief intervention approaches must still be prioritised".

The World Health Organization's [Alcohol, Smoking and Substance Involvement Screening Test](#) (ASSIST) provides a way to screen for problem or risky use of *multiple substances* (tobacco, alcohol, cannabis, cocaine, amphetamine-type stimulants, sedatives, hallucinogens, inhalants, opioids like heroin, and "other drugs") simultaneously. Using the results of this, a risk score can be calculated for each substance and categorised as low, moderate (harmful but not dependent use) or high (actually or probably dependent), in turn indicating whether no intervention is needed, a brief intervention to encourage the patient to cut back is needed, or rather a brief intervention encouraging them to seek further and/or specialised treatment. A [multi-national study](#) of this approach found that a brief intervention lasting on average a quarter of an hour and linked to the results of the ASSIST screening test could reduce illicit substance use and associated risk significantly among non-dependent patients.

One of the conclusions of the featured review was the probable cost-effectiveness of brief interventions. Only three studies addressed this specifically, and used different approaches to consider cost-effectiveness, producing different results. A [review](#) by an international team of researchers critically assessed the scientific basis of interventions intended to prevent or at least minimise the damage that illicit drugs do to the public good, including social benefits such as better public health, reduced crime, and greater stability and quality of life for families and neighbourhoods. It aimed to help policymakers make informed decisions about which options will maximise the public good. After reviewing the evidence the authors concluded that screening and brief intervention programmes have, on average, only small effects, but can be widely applied and are probably cost-effective.

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