

14.5 A&E units save health service resources by addressing drinking

Findings A US study has confirmed the potential for brief interventions in emergency units to save health service resources by reducing hospital visits.

The analysis was based on the only study then available to have assessed whether alcohol advice to emergency patients prevents re-attendance. It took place at a US trauma centre dealing with serious injuries. Patients admitted for at least 24 hours and whose blood analyses or screening results indicated heavy drinking were randomly assigned to a control group, or to be offered a half-hour alcohol advice session plus personal follow-up letter a month later. Over the following year, 47% fewer of these 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.

The featured study extrapolated these findings to all adult US emergency patients. Assuming a similar screening and intervention programme with similar results, it 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 are not large, the expenditure needed to achieve them is small, so for each \$ spent nearly \$4 would be saved in health care costs.

In context Several limitations weaken confidence in the extrapolation made from the original study. Perhaps most serious is that this approached inpatients in a trauma unit towards the end of their stays. Results from these largely recovered patients may differ from those of newly injured patients in emergency units with their unpredictable demands on patients and staff. However, the analysis modelled many different assumptions about costs, effectiveness, and implementation rates. Over nine in 10 scenarios still left the intervention saving more than it cost. These also revealed that the intervention's cost was not the critical thing; it was the extent to which it actually reduced re-attendances. The study on which the analysis was based did find large reductions but these fell short of statistical significance.

Restoring confidence are consonant findings from other studies, including the only other one to have recorded the impact of brief interventions on emergency department re-attendance. In this British

trial, patients were approached initially in the department **Practice implications.** Over the following year, positive screen patients referred for alcohol advice made on average 29% fewer return visits than similar patients not referred, probably an underestimate of the benefits in routine practice: faced with having to sign up to a study, fewer than half as many patients returned for counselling as previously found. Two US studies of interventions initiated (if not completed) in the emergency department found reductions in patient reports of alcohol-related injuries which exceeded the re-attendance reductions used in the featured analysis.

Though it missed some potential expenses (wasted time between referrals, management and training overheads, possible accommodation expenses), the study also conservatively accounted for savings. It assessed only emergency or hospital readmission costs, not those for follow-up care, and limited itself to medical costs. Successful interventions should also reduce non-medical costs from drink-driving and other drink-related crime and from lost productivity.

Practice implications As many as 4 out of 10 patients at British emergency units have a history of hazardous drinking or attend due to alcohol-related causes. The featured study is the first to estimate cost savings from addressing their drinking. Despite its limitations, the margin for error was wide enough, and the evidence from elsewhere supportive enough, to suggest that similar savings would emerge in other emergency units with a high alcohol-related caseload and effective screening and brief intervention procedures.

The best documented British model uses trained and motivated (performance feedback is important) emergency staff to screen suspected heavy drinkers or patients with complaints linked to heavy drinking. Doctors explain to positive screen patients that drinking is damaging their health and offer an appointment with an on-site alcohol counsellor, typically the same or the next working day. In these circumstances, two-thirds of patients attend for advice.

Featured studies Gentilello L.M. *et al.* "Alcohol interventions for trauma patients treated in emergency departments and hospitals: a cost-benefit analysis." *Annals of Surgery*: 2005, 241(4), p. 541–550 **AC**

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