ALCOHOL DRUG FINDINGS Research analysis



This entry is our analysis of a study added to the Effectiveness Bank. 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 in blue. Hover over orange text for notes. Clicking underlined text highlights passage referred to. The Summary conveys the findings and views expressed in the study. Below is a commentary from Drug and Alcohol Findings.

Title and link for copying | Comment/query to editor | Tweet

## Use of an electronic clinical reminder for brief alcohol counseling is associated with resolution of unhealthy alcohol use at follow-up screening.



**Williams E.C., Lapham G., Achtmeyer C.E. et al.**

**Journal of General Internal Medicine: 2010, 25(suppl. 1), p. 11–17.**

Unable to obtain a copy by clicking title? Try asking the author for a reprint by adapting this prepared e-mail or by writing to Dr Williams at emily.williams3@va.gov. You could also try this alternative source.

*When a patient has screened positive for risky drinking, up pops a computerised prompt to remind the clinician to consider counselling. In one service for US ex-military personnel, this resulted in nearly three quarters of patients being counselled and a hint of consequentially reduced drinking; at another, findings were negative. Why the difference?*

**SUMMARY** No health-care system has successfully implemented sustained, routine brief alcohol counselling. Using electronic medical records to remind clinicians to consider or undertake this work can increase provision of recommended preventive care, and providers at practices with clinical decision support systems are more likely to counsel patients with unhealthy alcohol use than those at practices without. However, no study has tested an electronic clinical reminder as a method of implementing brief alcohol counselling in the absence of other systematic supports or incentives.

The US 'VA' health care service for ex-military personnel offers an important opportunity to test such a system. Constituent services commonly deploy clinical reminders in electronic records in conjunction with national performance measures linked to financial incentives. The service nationally implemented annual alcohol screening in 2003, resulting in over 90% of all outpatients being screened for unhealthy drinking. The next step is to maximise the numbers then offered advice.

With this aim in mind, an electronic clinical reminder was developed to prompt clinicians at a VA service with eight associated sites to offer brief alcohol counselling when patients were recorded as having screened positive for unhealthy drinking on the AUDIT-C screening questionnaire. It was implemented without any other provider training or support. As well as prompting the service provider, the system offered them information about what constitutes evidence-based brief alcohol counselling, supported assessment of alcohol use severity, provided an aid to deciding whether to implement brief counselling or referral, and documented these actions in the patient's record. Though prompted automatically, providers could choose whether to open and act on these and any other prompts in respect of other conditions.

The study aimed to determine the proportion of positive-screen patients whose care providers did open and use the reminder over a two-year period, and whether this use was associated with resolution (defined as screening negative plus at least a two point out of 12 reduction in score) of unhealthy alcohol use at follow-up alcohol screening, relying only on VA records. Findings were adjusted for differences between patients of the kind found by research to be associated with receipt of brief alcohol counselling and changes in drinking. Among these were multiple indicators of history and severity of unhealthy drinking.

Of 36,191 patients screened, 8759 screened positive. Of these, 4206 were re-screened from one month to three years later (averaging 14 to 15 months) and 4198 had a documented visit to the service during the study period; data from these 4198 patients was included in the study.

### Main findings

Use of the alcohol counselling reminder was documented for 71% of positive-screen patients, most often for men, those who were single, relatively severely disabled due to military service, or had mental health diagnoses. No other measures of alcohol severity, other substance use, or physical comorbidity were associated with reminder use.

At follow-up screening, 31% of patients had resolved their unhealthy drinking; younger, female, non-white, single, service-disabled patients and those with more severe unhealthy alcohol use or other substance use and mental health diagnoses were more likely to have done so.

Before the figures had been adjusted for differences between patients, resolution of unhealthy alcohol use was found to have been significantly more likely (32% versus 28%) among those whose providers had used the reminder system, and these patients had also made significantly greater reductions in their drinking (averaging 1.65 versus 1.28 points). The resolution proportions were virtually unchanged (31% versus 28%) and remained significant after adjusting for patient differences.

Without the reminder, higher proportions of patients documented as having more severe substance use problems resolved their drinking than did patients without such problems. This was not the case when providers had used the reminder.

### The authors' conclusions

Clinical reminders succeeded in moving brief alcohol counselling up the busy clinical agenda for patients irrespective of the severity of their drinking, evidence that in routine practice such systems can extend brief alcohol counselling to more patients. Providers chose to use the reminders for nearly three quarters of patients who screened positive for unhealthy drinking, many more than the 28% of VA

outpatients nationally with unhealthy drinking who said they had been advised about their drinking. This

outpatients nationally with unhealthy drinking who said they had been advised about their drinking. This high performance was sustained for two years without any further support or incentives. Moreover, such patients were significantly if modestly more likely to report having resolved unhealthy alcohol use at follow-up than patients whose providers had not used the reminders. The fact that drinking severity was unrelated to documented advice/referral, and that reminder use 'evened out' differences in resolution rates associated with substance use severity, suggests that the reminder might counteract the inclination of providers to primarily counsel patients with the worst drinking problems.

It is unknown whether these findings would be replicated at VA or non-VA sites where clinical reminder use is not routine. Also, there is no consensus on what makes counselling effective, and it is unclear whether providers are prepared to offer effective counselling in the absence of education and coaching, even when prompted. The finding that use of the clinical reminder was associated with modest increases in resolution of unhealthy alcohol use may mean some providers have the necessary skills to offer effective brief alcohol counselling, or that the content of the counselling is less important than the fact that a provider raised the issue of drinking. Additional research is needed to evaluate the quality of counselling offered when reminders are used to prompt providers to counsel patients in real world settings, and to determine educational needs of providers and efficient approaches to meeting them.

Strengths of the study include no opportunity for bias due to selection of participants, and routine implementation with no special support and across several sites. However, the findings are vulnerable to patients who have been counselled being less willing to admit to continued drinking problems, to remaining differences between counselled and non-counselled patients which could not be adjusted for, and to differences between providers who did or did not tend to use the reminders. It could also be that patients were counselled but this was not documented in the reminder system.

**FINDINGS COMMENTARY** With screening effectively incentivised at national level, the reminder system helped ensure that most patients who screened positive were documented as receiving some advice. In the context of other studies, it is a convincing demonstration that such reminders can set the stage (but not always ▸ below) for raising counselling rates to high levels. Much less convincing, however, is the conclusion that the result was to reduce drinking problems. As the authors acknowledged, and especially without comparison sites where the reminder system was *not* implemented, the small difference in the resolution of problems as defined by the study in patients who were or were not (according to records) counselled is indicative of at best a very modest impact, and possibly none at all given the limitations of the study. This in turn may be tied to the inability to assess or influence the quality of the counselling and even whether it actually happened.

The authors' caution that their findings may not be replicated at sites where clinical reminder use is not routine seems to have been borne out by another study of the same system in part of a VA clinic, which was able to compare results with another part of the same clinic in which the system was not implemented. No significant differences were found in the improvements made by risky drinking patients attending the two parts of the clinic, perhaps partly because (according to records) clinicians who were prompted by the reminders used the system for just 15% of patients, and then rarely to offer a brief intervention (just 6% of patients). The authors speculate that the difference was due to clinicians in the featured study being "expected to use clinical reminders," whilst presumably expectations were lower at the VA clinic where implementation was poor. This seems to decisively indicate that while the prompts provide a tool to improve performance, whether this tool is used depends on the culture and management of the organisation in which it is implemented, in line with emphases in reviews (1 2) of the implementation of screening and brief intervention.

Nationally too, in the VA system drinking outcomes after brief intervention have been disappointing. Using VA records, it was found that patients who screened positive for risky drinking and were re-screened around a year later were no more likely to have stopped risky drinking if their records indicated that had participated in a brief intervention than if they did not. The remission proportions were virtually identical – adjusted for other factors, 47% with advice, 48% without. Another finding was that just 28% of these repeat-screen patients had been advised about their drinking, and they tended to be the higher risk drinkers, despite the introduction of a national performance measure incentivising brief intervention aided by an electronic clinical reminder to positive-screen patients available to all VA facilities. Results from this early phase of the new national system offered no encouragement to its continuation, though results may change as the system beds in and is developed.

While the featured study was mainly about the counselling which should follow screening, another study has questioned the validity of screening results in the national VA system, finding that 61% of patients who screened positive when sent a postal survey did not do so when the same questions were asked as part of their routine care at their VA clinics.

Apart from the limitations noted by the authors, because of the requirement for a follow-up screen the study included only about half the patients who initially screened positive. Whether the other half were also counselled at the same high rate is not known. It means that potentially the counselling rate among all positive screen patients was as low as 34%. However, the report which documented the first eight months of the scheme also found high counselling rates (after bedding in, about two thirds of positive screen patients were recorded as having been counselled), and no mention is made of these results being limited to patients who were re-screened some time later.

## Closely related studies and reviews

Also in the Effectiveness Bank is a review of performance measurement options for VA alcohol screening and brief intervention systems. This includes results from the first eight months of the system evaluated in the featured report. A further and less encouraging study has evaluated the same system in another clinic. Another focused on the screening element at VA services nationally. Also available is an overview of issues and findings in respect of implementation of similar systems in the VA network nationally. In the Effectiveness Bank too are a review by the same research team and another conducted for Britain's National Institute for Health and Clinical Excellence of what impedes or promotes the implementation of brief alcohol interventions. The latter analysis includes extended commentary on the UK situation, partially replicated in a 'hot topic' entry discussing whether brief alcohol interventions really can deliver population-wide health gains.

Last revised 01 October 2015. First uploaded 01 February 2013

▸ Comment/query to editor
▸ Give us your feedback on the site (two-minute survey)
▸ Open Effectiveness Bank home page
▸ Add your name to the mailing list to be alerted to new studies and other site updates

**Top 10 most closely related documents on this site. For more try a subject or free text search**

STUDY 2010 Evaluation of an electronic clinical reminder to facilitate brief alcohol-counseling interventions in primary

STUDY 2010 Evaluation of an electronic clinical reminder to facilitate brief alcohol-counseling interventions in primary care

STUDY 2011 Quality concerns with routine alcohol screening in VA clinical settings

HOT TOPIC 2015 Can brief alcohol interventions improve health population-wide?

REVIEW 2011 Strategies to implement alcohol screening and brief intervention in primary care settings: a structured literature review

REVIEW 2010 Alcohol-use disorders: Preventing the development of hazardous and harmful drinking

REVIEW 2011 Barriers and facilitators to implementing screening and brief intervention for alcohol misuse: a systematic review of qualitative evidence

STUDY 2011 An evaluation to assess the implementation of NHS delivered alcohol brief interventions: final report

STUDY 2012 Alcohol screening and brief intervention in primary health care

STUDY 2012 Alcohol screening and brief intervention in emergency departments

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