The potential cost-effectiveness of general practitioner delivered brief intervention for alcohol misuse: evidence from rural Australia

Navarro HJ, Shakeshaft A, Doran CM, Petrie DJ

Record Status
This is a critical abstract of an economic evaluation that meets the criteria for inclusion on NHS EED. Each abstract contains a brief summary of the methods, the results and conclusions followed by a detailed critical assessment on the reliability of the study and the conclusions drawn.

CRD summary
The objective was to assess the cost-effectiveness of screening and a brief intervention for alcohol misuse, delivered by a general practitioner (GP). The authors concluded that increasing the rate of GP screening for alcohol misuse and the uptake of a brief intervention was cost-effective. Overall, the methods were adequate. There were important limitations, but the authors’ conclusions appear to be valid for the scope of the study.

Type of economic evaluation
Cost-effectiveness analysis

Study objective
The objective was to assess the cost-effectiveness of screening and a brief intervention for alcohol misuse, delivered by a general practitioner (GP).

Interventions
The authors assessed the impact of screening with or without a brief intervention to reduce alcohol consumption. This was compared with the usual practice, with some screening and some intervention.

Location/setting
Australia/primary care.

Methods
Analytical approach:
A decision model, which followed patient pathways, was used to assess the costs and outcomes of the usual practice and the GP-delivered intervention. The time horizon was one year and the perspective was not reported.

Effectiveness data:
The clinical and effectiveness data were mainly from a cohort study, called the Alcohol Action in Rural Communities (AARC) project. This study obtained data from 1,540 surveys completed by randomly selected individuals in 10 Australian communities in 2005. The data included the proportion of people in each drink category (abstainer, low-risk drinker, risky drinker, and dependent drinker) and how many times they visited their GP. Other data were from a meta-analysis of 22 randomised controlled trials on the effectiveness of a brief intervention in general practice (Kaner, et al. 2007, see ‘Other Publications of Related Interest’ below for bibliographic details).

Monetary benefit and utility valuations:
None.

Measure of benefit:
The summary measure of benefit was the number of risky drinkers who reduced their alcohol consumption to low-risk levels.

Cost data:
The direct costs included training for GPs to provide the brief intervention, screening, provision of the brief intervention to the patient, and follow-up GP visits. The costs of training and providing the brief intervention were from...
the AARC project. The costs of GP visits were from Australian fee schedules. All costs were reported in 2005 to 2006 Australian dollars (AUD).

Analysis of uncertainty:
A one-way sensitivity analysis was carried out to explore variations in the effectiveness of the brief intervention, and variations in the intervention uptake by patients.

Results
With the usual practice, 19% of risky drinkers who visited their GP reduced their alcohol consumption to low-risk levels. With a 100% uptake of the GP-delivered screening and brief intervention, 36% of risky drinkers reduced their consumption to low-risk levels. From usual practice levels of screening and brief intervention, an increase of 10% reduced the proportion of risky drinkers by 2.1% and an increase of 20% reduced it by 4.2%.

The total cost of the usual practice was AUD 129,530. The total cost of providing the screening and brief intervention to all risky drinkers in Australia was AUD 117,899 with a 10% increase from usual practice, AUD 227,952 with a 20% increase, and AUD 1,132,222 with 100% uptake.

Compared with the usual practice, the additional cost per risky drinker who reduced their alcohol consumption to low-risk levels with screening and the brief intervention was AUD 217 with a 10% increase, AUD 205 with a 20% increase, and AUD 216 with 100% uptake.

Increasing the effectiveness of screening and intervention to 59% (assuming 100% uptake) resulted in an estimated 44% of all risky drinkers reducing their consumption to low-risk levels, and an incremental cost-effectiveness ratio of AUD 174 per additional drinker, compared with the usual practice.

Authors’ conclusions
The authors concluded that increasing the rate of GP screening for alcohol misuse and the uptake of a brief intervention was cost-effective.

CRD commentary
Interventions:
The authors did not describe the brief intervention and screening, and they did not fully describe the usual practice.

Effectiveness/benefits:
The clinical and effectiveness information was from an Australian cohort study and a meta-analysis of 22 randomised controlled trials. Appropriate details of the cohort study and the main parameters derived from it were given. The effectiveness of the brief intervention was from a published meta-analysis and this estimate is likely to have been internally valid. The measure of benefit was specific to alcohol misuse, making it difficult to determine if the cost-effectiveness ratios indicated that the intervention was cost-effective.

Costs:
The perspective was not explicitly reported, but it appears that a primary health care provider perspective was adopted, with no costs outside primary care being analysed. The sources for the costs were reported, as were the price year, time horizon, and the currency.

Analysis and results:
The cost and outcome information was synthesised in a decision model. Appropriate details of the model structure and a diagram were provided. A limited one-way sensitivity analysis was undertaken, varying the effectiveness and uptake rates. The overall model uncertainty was not evaluated. As the main limitations to their study, the authors reported that alcohol misuse was self reported and the rates of screening and uptake of a brief intervention were uncertain.

Concluding remarks:
Overall, the methods were adequate. There were important limitations, but the authors’ conclusions appear to be valid for the scope of the study.
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