Effectiveness and cost-effectiveness of a stepped care intervention for alcohol use disorders in primary care: pilot study


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
This study assessed the feasibility and cost-effectiveness of a stepped care intervention for adult men with alcohol use disorders, in primary care. The authors concluded that the stepped care intervention was cost-effective compared with minimal care, but the pilot study did not provide strong evidence for this superiority. There were some limitations with the cost analyses, but the methods of the pilot study were mostly appropriate and clearly reported. The authors’ conclusions appear to be appropriate.

Type of economic evaluation
Cost-utility analysis

Study objective
This study assessed the feasibility and cost-effectiveness of a stepped care intervention for alcohol use disorders in primary care. The population consisted of adult men who were not seeking treatment and who scored eight or more on the Alcohol Use Disorders Identification Test, had a diagnosis of alcohol use disorder, or both.

Interventions
The stepped care intervention for alcohol use disorders was compared with a minimal intervention. Stepped care was three sequential interventions, including behavioural change counselling, motivational enhancement therapy, and specialist care, with patients targeted according to their need and response after each step. The minimal intervention was a five-minute advice session, provided by a nurse, and short self-help booklet.

Location/setting
UK/primary care.

Methods
Analytical approach:
The evaluation was based on the results of a randomised controlled trial. The authors did not state the study perspective. The time horizon was six months, starting at randomisation to the trial.

Effectiveness data:
The effectiveness data came from one clinical trial. A sample of 112 adult men was recruited and because this was insufficient to detect a standardised effect size of 0.36, the trial was considered to be a pilot study. An intention-to-treat approach was taken and analysis of covariance was used to assess the mean effect changes, adjusted for baseline scores. Six months after randomisation, patients were contacted by an independent researcher for follow-up. The main clinical effectiveness estimate was alcohol consumption. This was measured over 180 days using the Time Line Follow Back questionnaire, which assessed total consumption, number of drinks per drinking day, and days of abstinence. Secondary outcomes were motivation, alcohol dependence, alcohol-related problems, self-efficacy (confidence in resisting alcohol), and quality of life.

Monetary benefit and utility valuations:
The utility values were from the trial sample, using the European Quality of life (EQ-5D) questionnaire at baseline and at six months. UK population values for the EQ-5D were used.
Measure of benefit:
The measure of benefit was quality-adjusted life-years (QALYs).

Cost data:
The direct and indirect costs included those of treatment, health care, social care, accident services, and criminal offences six months before and after randomisation. The intervention costs included opportunistic screening, staff training and salaries, overheads, and premises used by intervention staff. The unit costs, from national sources, were used to estimate service use, while government sources were used for the costs of crime. All costs were reported in 2001 UK pounds sterling (£).

Analysis of uncertainty:
The joint uncertainty in the costs and effects was tested by creating a sampling distribution for the incremental cost-effectiveness ratio, using bootstrap statistics. The results of these bootstrapped analyses were reported in the main text and a cost-effectiveness acceptability curve was produced.

Results
The mean total costs were £5,692 at baseline and £2,534 at follow-up for stepped care, compared with £6,851 at baseline and £12,637 at follow-up for the minimal intervention. The mean social cost in the six-month period was £2,308 with stepped care and £12,617 with the minimal intervention. There was high variation in the separate cost components and the differences between the intervention groups were not statistically significant.

The mean QALYs were 0.3849 for stepped care, compared with 0.3876 for the minimal intervention. Small differences between groups favoured stepped care, for most of the secondary outcomes, but these improvements were not statistically significant.

Bootstrapped analyses of the incremental cost-effectiveness ratios indicated a 98% chance that the stepped care intervention was cost-effective, when the acceptable value of a QALY was £20,000 to £30,000.

Authors' conclusions
The authors concluded that the stepped care intervention was cost-effective compared with minimal care, but the pilot data were not strong evidence for this superiority. A larger trial by the same authors was underway at the time.

CRD commentary
Interventions:
The minimal and stepped care interventions were clearly described with details of the types of care offered, health professionals, and protocols for moving through the sequential steps of care. These interventions might be feasible in other settings.

Effectiveness/benefits:
The effectiveness data were from one prospective randomised controlled trial, involving six primary care practices, and it appears to have been of good quality. A large proportion of the men who were eligible for the trial, 335 out of 447 (75%), did not participate and the authors acknowledged that the participants were not likely to be representative of all men with alcohol use disorders. The measurement of the clinical effects and their rigorous statistical analyses were clearly reported, taking into account baseline scores for alcohol use and its impact. Favourable intervention effects were found for both arms over time, but the group differences were not statistically significant, partly due to the small sample.

Costs:
The study perspective was not explicitly stated, but was broad and included health and social costs, which was appropriate for alcohol use disorders. It was unclear if all the costs relevant to the perspective were included. The types and quantities of resources used were clearly reported, with their data sources. Protocol-driven resources did not appear to have been included in the intervention costs. Some follow-up cost data were missing and the costs were analysed for 67% of the control group and 94% of the stepped care group, which could have biased the cost estimates.
Analysis and results:
The incremental cost-effectiveness ratio was not explicitly reported, probably because the base case produced a negative ratio, with higher costs and lower QALYs. The costs were highly variable and not statistically different between groups. Some limitations were acknowledged by the authors, including the number of men refusing to take part in the study, which created a potentially unrepresentative sample. The results of the sensitivity analyses were briefly reported. The graphs of the cost-effectiveness acceptability curve and cost-effectiveness plane were not presented and these could have enhanced the report.

Concluding remarks:
There were some limitations with the cost analyses, but the methods of the pilot study were mostly appropriate and clearly reported. The authors’ conclusions appear to be appropriate.

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