Economic evaluation of a crisis resolution service: a randomised controlled trial

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 examined the cost-effectiveness of a crisis resolution team (CRT) intended to avoid in-patient admission for people experiencing mental health crises. The study focused primarily on the economic aspects of the CRT. The authors concluded that the CRT was a cost-effective strategy even at conservative estimates of the cost of an in-patient stay. The study appears to have been satisfactorily carried out and the methodology was consistent with the objective. The authors’ conclusions are robust.

Type of economic evaluation
Cost-effectiveness analysis

Study objective
The objective was to examine the cost-effectiveness of a crisis resolution team (CRT) intended to avoid in-patient admission for people experiencing mental health crises. The study focused primarily on the economic aspects of the CRT.

Interventions
The care provided by the CRT was compared with usual care. The CRT care was an addition to usual care and the intention was to treat patients at home where possible. Staff were available 24 hours per day. The usual care consisted of conventional inputs from community mental health teams, in-patient units, and crisis houses.

Location/setting
UK/hospital.

Methods
Analytical approach:
The analysis was based on a single study with a six-month follow-up. The authors stated that a public payer perspective was adopted.

Effectiveness data:
The effectiveness analysis was based on a published randomised controlled trial (RCT), which included 260 patients, with 135 in the CRT group and 125 in the usual care group. The mean age was 38.0 years and the percentage of men was 48% in the CRT group and the mean age was 37.8 years and the percentage of men was 54% in the usual care group. In general, the two groups were comparable at baseline in their socio-demographic and clinical characteristics. The mean follow-up was 26 weeks. Various clinical endpoints were used in the RCT and the key input, in this analysis, was the number of days not spent on a psychiatric ward (avoided in-patient days).

Monetary benefit and utility valuations:
Not included.

Measure of benefit:
The summary benefit measure was the number of days not spent on a psychiatric ward, which was derived directly from the RCT.

Cost data:
The economic analysis included the costs associated with health care and social services, including contacts with the
criminal justice system. The resource use data were gathered in the RCT over the six months before enrolment and the six months after randomisation, using the Client Service Receipt Inventory. These data were collected from patient interviews or from an administrative database. Most of the costs were derived from the Personal Social Services Research Unit. They were in UK pounds sterling (£) for the fiscal year 2003 to 2004.

Analysis of uncertainty:
The uncertainty underlying the cost estimates was investigated using bootstrapping with 10,000 re-samples to construct 90% confidence intervals (CIs) around the cost differences.

Results
The costs and benefits were synthesised using the net benefit approach, where the net benefit is defined as the amount that society is willing to pay for an avoided in-patient day. This value was varied from £0 to £300 in £25 increments.

When in-patient costs were excluded, the additional costs of CRT were £768 over usual care (90% CI 153 to 1,375). When in-patient costs were included, CRT saved £2,438 (90% CI 937 to 3,922) over the six-month follow-up period after adjusting for the baseline costs.

The cost-effectiveness acceptability curves suggested that the likelihood of CRT being cost-effective was less than 10% when the societal willingness to pay (WTP) for an avoided in-patient day was £0. It was 41% at a WTP of £25 and almost 100% at a WTP of over £100. The cost of an in-patient day in the UK was over £100.

Authors’ conclusions
The authors concluded that the CRT was a cost-effective strategy even at conservative estimates of the cost of an in-patient day.

CRD commentary
Interventions:
The selection of the comparators was appropriate as the usual care was compared with the proposed intervention. The two strategies were briefly described as they were more extensively presented in the primary RCT paper.

Effectiveness/benefits:
A RCT is generally an appropriate source for the clinical evidence given the strengths of its design, which should minimise selection and assessment biases. Limited information on the trial design and results was provided as it had already been published. The authors stated that the two groups were similar in both their clinical and demographic characteristics. The benefit measure was an intermediate outcome of the impact of the interventions on patients’ health. It may also be difficult to compare directly with the benefits of other health care interventions, but avoided days in hospital was consistent with the objective of the study.

Costs:
The cost analysis was only partially presented as most of these details were reported in the primary RCT paper. The data on resource consumption were presented for both groups of patients together with the price year and the use of statistical analyses to deal with the skewed distribution of costs. In general, the cost analysis appears to have been well conducted, but the authors acknowledged that most of the data came from patient interviews and recall bias might have affected their validity.

Analysis and results:
The expected benefits and cost-effectiveness ratios were not reported as the net benefit approach was used to synthesise the costs and benefits. The authors acknowledged that the use of in-patient stay as the benefit measure reduced the generalisability of the results in terms of possible comparisons with the benefits of other health care interventions. Other limitations of the analysis were acknowledged by the authors and have already been reported.

Concluding remarks:
This study appears to have been satisfactorily carried out and the methodology was consistent with the objective. The authors’ conclusions are robust.
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