The REACT study: cost-effectiveness analysis of assertive community treatment in north London

McCrone P, Killaspy H, Bebbington P, Johnson S, Nolan F, Pilling S, King M

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 examine the cost-effectiveness of assertive community treatment (ACT) in comparison with usual care from community mental hospital teams for patients with long-term serious mental health problems. The authors concluded that ACT incurred similar costs to usual care, but was associated with greater levels of client satisfaction and engagement with services. The study was generally well conducted and the analytic framework provided robust results, despite some methodological limitations.

Type of economic evaluation
Cost-effectiveness analysis

Study objective
The objective was to examine the cost-effectiveness of assertive community treatment (ACT) in comparison with usual care from community mental hospital teams (CMHTs) for patients with long-term serious mental health problems and limited engagement with services.

Interventions
The ACT was intended to improve client engagement in treatment through an intensive and flexible team approach. This was compared with the usual care from CMHTs.

Location/setting
UK/community health care.

Methods
Analytical approach:
The analysis was based on a single study with an 18-month time horizon. The authors did not explicitly state the perspective adopted.

Effectiveness data:
The clinical evidence came from a published randomised controlled trial (RCT); the Randomised Evaluation of Assertive Community Treatment in north London (REACT) study (Killaspy, et al. 2006, see ‘Other Publications of Related Interest’ below for bibliographic details). The methodological details and results of this study were published elsewhere. Some key inclusion and exclusion criteria were reported and the length of follow-up was 18 months. There were 127 patients (mean age 39 years, SD 11; 62% men) in the ACT group and 124 patients (mean age 40 years, SD 11; 55% men) in the usual care group. The two groups were similar at baseline in their demographic and clinical characteristics. The clinical endpoint was the satisfaction level, with higher scores indicating greater satisfaction.

Monetary benefit and utility valuations:
Not considered.

Measure of benefit:
The summary benefit measure was the level of satisfaction, which was taken directly from the RCT. This was estimated using Gerber and Prince's scale.
Cost data:
The economic analysis included: supported accommodation, in-patient and out-patient care, accident and emergency services, day treatment, and support provided by community and mental health staff, general practitioners, police, lawyers, courts, probation officers, prisons, family members, and friends. Medications were not included. The resource use was based on data from the RCT, using the Client Service Receipt Inventory in the six months prior to randomisation and at the follow-up assessment (at 18 months). These data were supplemented with case notes for in-patient stay and contacts with mental health workers. The unit costs were assessed using nationally applicable costs from the Personal Social Services Research Unit. Some assumptions for the derivation of the cost of informal care were made. All costs were in UK pounds sterling (£), at 2003 to 2004 prices. They were also presented in US dollars ($). Bootstrapping analysis was used to deal with the skewed distribution of costs.

Analysis of uncertainty:
Cost-effectiveness acceptability curves (CEACs) were generated, using a bootstrapping approach, to assess some aspects of the uncertainty relating to the probability of ACT being more cost-effective than usual care.

Results
The total 18-month costs were, on average, £4,031 (95% CI -2,592 to 10,690; $6,369) higher in the ACT group, but this difference was not statistically significant.

In the subsample of patients that provided full economic and satisfaction data, the mean cost difference was £3,592 ($5,675) and the improvement in satisfaction was 7.6 points (95% CI 1.8 to 13.5) in favour of the ACT group. This was statistically significant. The incremental cost per extra unit of improvement in satisfaction produced by the ACT was £473 ($747).

The CEACs showed that, at a societal willingness to pay (WTP) £0 per unit of improvement in satisfaction, there was a 21% probability that ACT was more cost-effective than usual care. This probability rose to 78% at a WTP £1,000.

Authors' conclusions
The authors concluded that ACT incurred similar costs to usual care, but was associated with greater levels of client satisfaction and engagement with services.

CRD commentary
Interventions:
The rationale for the selection of the comparators was clear. The proposed approach was appropriately compared against the conventional pattern of care in the authors’ setting. The two strategies were only partially described, presumably because more information was in the original RCT report.

Effectiveness/benefits:
The use of a RCT as the source of evidence is generally considered to be a valid approach, given the strengths of its design, which should reduce the impact of confounding factors and selection bias. Other strengths of the analysis were the baseline comparability of study groups with respect to their clinical and demographic characteristics, the detailed reporting of the inclusion and exclusion criteria, and the appropriate length of follow-up. More information should be available in the RCT publication and this would allow a clear judgement of the quality of the trial. The authors stated that satisfaction was chosen as the measure of benefit as it was the only outcome that showed statistically significant differences between the two groups in the RCT. Patient satisfaction is only a partial outcome and other measures, such as quality of life would have been more interesting.

Costs:
The viewpoint of the economic analysis was not stated, but a broad range of cost categories was included and it appears that a societal perspective was adopted. In general, the economic analysis was reported in detail. A breakdown of cost items was provided as well as extensive information on the resource use. The methods used to deal with missing data for resource consumption were described. Appropriate statistical tests were carried out to deal with the non-normal distribution of cost estimates. The authors reported the price year and total costs in US dollars. A potential drawback of the analysis was the use of self-reported data on resource consumption and this was acknowledged by the authors.
Analysis and results:
The costs and benefits were appropriately synthesised using an incremental approach and the findings were clearly presented. The issue of uncertainty was investigated using a valid approach and an acceptability curve was presented and described. The authors highlighted some potential limitations to their study, which have been reported.

Concluding remarks:
The study was generally well conducted and the analytic framework provided robust results, despite some methodological limitations.

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