Cost effectiveness of the Expert Patients Programme (EPP) for patients with chronic conditions

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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 the Expert Patients Programme (EPP) compared with usual care, in people with long-term conditions. The authors concluded that the EPP was very likely to be cost-effective compared with the usual care. The methodology was, on the whole, good and both the methods and results were adequately reported. Given the scope of the analysis, the authors’ conclusions appear to be appropriate.

Type of economic evaluation
Cost-utility analysis

Study objective
The objective was to assess the cost-effectiveness of the Expert Patients Programme (EPP) compared with "treatment as usual" in patients with a wide range of self-defined, long-term conditions.

Interventions
The EPP consisted of six 2.5-hour group sessions, with between 8 and 12 people per group, and was held weekly. The topics discussed within the sessions included relaxation, diet, exercise, fatigue, breaking the "symptom cycle," managing pain and medication, and communication. This programme was compared with usual treatment.

Location/setting
UK/community care.

Methods
Analytical approach:
The effectiveness and resource use data were derived from a two-arm pragmatic randomised controlled trial (RCT) with control data from patients on a waiting list. The time horizon was six months. The authors reported that a societal perspective was adopted.

Effectiveness data:
The effectiveness data were derived from a two-arm pragmatic RCT with waiting list control data. More details of the trial were given in Kennedy, et al. 2007 (see ‘Other Publications of Related Interest’ below for bibliographical details). The authors reported that the two groups were comparable in terms of their age, gender, ethnicity, type of long-term condition, and other socio-demographic characteristics. The two patient groups were followed-up for six months. The main clinical efficacy estimate was the patient’s quality of life measured using the European Quality of life (EQ-5D) questionnaire.

Monetary benefit and utility valuations:
The patient’s health state was measured at baseline and at six months using the EQ-5D. These health states were then valued using a published scale based on a sample of 3,395 members of the UK public.

Measure of benefit:
The measure of benefit was quality-adjusted life-years (QALYs) gained.

Cost data:
The direct costs were those relating to: visits to primary health care practitioners; secondary care appointments; hospital stays; community-based support; individual's out-of-pocket expenses; medications; and the intervention including management, training, delivery, and facilities. The costs of lost productivity (or indirect costs) were not included. The resource use information was obtained from patient questionnaires, which were administered at baseline and at the six-month follow-up. The unit costs were derived from national estimates. The cost of the intervention was estimated from data on the overall costs of the EPP and those over the trial period. All costs were inflated to 2003 to 2004 prices using the Health Service Cost index. All costs were reported in UK pounds sterling (£).

**Analysis of uncertainty:**
The authors evaluated the impact of missing quality of life, resource use and cost data using best subset regression, which created the missing data. In addition, three separate sensitivity analyses were performed. The first assessed the possibility of the difference in quality of life between the two groups being maintained over a longer time period. The second assessed the impact of creating missing data using multiple imputation and the third assessed the impact of excluding the patient costs. In addition, uncertainty was assessed using a cost-effectiveness acceptability curve (CEAC), with 1,000 bootstrap replications.

**Results**
Over a 12-month period, the mean QALYs gained in the EPP group were 0.276 and in the control group they were 0.258, which was an additional 0.018 (95% confidence interval, CI: -0.004 to 0.041). Adjusting for age, sex, medical condition, and baseline EQ-5D score, the difference in mean QALYs gained was 0.020 (95% CI: 0.007 to 0.034).

Over a six-month period, the mean costs per patient in the EPP group were £1,912 compared with £1,939 in the control group, which was a saving of £27 (95% CI: -368 to 422).

The EPP was dominant (i.e. it had lower costs and was more effective) over the usual care, and therefore, calculation of an incremental cost-utility ratio was not relevant. The results of the CEAC showed that, at a willingness to pay threshold of £20,000 per QALY, the EPP had a 94% probability of being cost-effective.

The sensitivity analysis showed that, if the difference in quality of life were extended to the long-term, the EPP was more likely to be cost-effective. Varying the method by which missing data was imputed did not vary the overall results and excluding the patient costs resulted in the EPP being more likely to be cost-effective.

**Authors’ conclusions**
The authors concluded that the EPP was very likely to be cost-effective compared with usual care in people with long-term conditions.

**CRD commentary**
**Interventions:**
The interventions were reported clearly and in detail. An explicit justification was given for the comparator used, namely that it represented usual care in the authors' settings.

**Effectiveness/benefits:**
The effectiveness data were derived from a RCT, which was appropriate. Well conducted RCTs are considered to be the gold standard study design when comparing health interventions. The authors also provided adequate details on how the patients' health status and quality of life were measured. As these data were derived from patient questionnaires and some data were missing, the authors also evaluated the impact of the missing information, using several methods.

**Costs:**
The authors explicitly reported that a societal perspective was adopted. However, they did not include indirect costs (productivity losses). Apart from this, it would appear that all the relevant cost categories, and costs, were included. As with the efficacy data, the resource use data were collected using patient questionnaires. The missing data were evaluated using several appropriate methods. The authors appropriately reported how the resource use data were collected and the sources for the unit costs.
Analysis and results:
A synthesis was not undertaken by the authors because the intervention was the dominant strategy, that is, it was less costly and more effective. The eventual missing data were acknowledged by the authors as being one of the study limitations. However, the sensitivity analysis confirmed the robustness of the results. The authors compared their findings with those from other studies which, in general, showed the results to be in agreement.

Concluding remarks:
The study methodology was, on the whole, good and both the methods and results were adequately reported. Given the scope of the analysis, the authors' conclusions appear to be appropriate.

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Other publications of related interest


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