A method for estimating the cost-effectiveness of incorporating patient preferences into practice guidelines

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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.

Health technology
Preference-fixed protocols versus preference-flexible protocols in the treatment of mild hypertension (diastolic blood pressure 90-100 mm Hg).

Type of intervention
Disease management; Primary prevention.

Economic study type
Cost-utility analysis.

Study population
Patients with mild hypertension

Setting
Primary care. The economic study was carried out in the UK.

Dates to which data relate
The dates for resources and effectiveness data were not clearly stated. Prices related to 1991.

Source of effectiveness data
A review of studies

Modelling
A Markov decision model was used to estimate costs and benefits.

Outcomes assessed in the review
The reduction in rate of myocardial infarction and stroke from pharmacological therapy.

Study designs and other criteria for inclusion in the review
Randomised controlled trials.

Sources searched to identify primary studies
Not stated.
Criteria used to ensure the validity of primary studies
Not stated.

Methods used to judge relevance and validity, and for extracting data
Not stated.

Number of primary studies included
Eight RCTs were included in the review

Methods of combining primary studies
Meta-analysis.

Investigation of differences between primary studies
Not stated.

Results of the review
Pharmacologic therapy reduced the rate of myocardial infarction by 9% and stroke by 40%.

Measure of benefits used in the economic analysis
Quality-adjusted life expectancies (QALE), derived using a Markov model. "Time trade off" techniques were used, e.g. a patient willing to forego five days of life every year to be free from side effects of medications has a utility for medications of 0.986 (360/365).

Direct costs
Costs and quantities were not reported separately. Only health service costs were considered. Costs estimates were based on published studies. Costs included: pharmacologic therapy; monitoring; medical costs associated with nonfatal stroke, nonfatal myocardial infarction and death. Moreover, the cost of eliciting patients preferences for treatment was estimated. Throughout the authors assumed a 5% discount rate. Price related to 1991. Final costs were calculated using a Markov model.

Currency
Us dollars.

Sensitivity analysis
No sensitivity analysis was carried out.

Estimated benefits used in the economic analysis
For the cohort of 37 patients the expected health benefits with individualised utility assessment was 544.10 QALYs, without utility assessment the expected benefit fell to 543.87 QALYs (benefits were discounted at 5%).

Cost results
For the cohort of 37 patients the expected cost of treatment for the assessment based on preference-flexible guidelines was $248,698; compared to $237,528 for preference-fixed guidelines.
Synthesis of costs and benefits
The marginal cost-effectiveness ratio of preference-flexible guidelines versus preference-fixed guidelines was given as $48,565, a ratio that compares favourably with those of other health interventions that are promoted actively.

Authors' conclusions
Preference-flexible guidelines were cost-effective relative to preference-fixed guidelines.

CRD Commentary
The study was well-conducted and clearly documented. However, more information is needed on the breakdown of costs and there appeared to be an anomaly in the calculation of the marginal cost effectiveness ratio, in that the costs of eliciting utilities appeared to be partly ignored.

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