Cost-effectiveness of shared pharmaceutical care for older patients: RESPECT trial findings

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 aim was to assess the cost-effectiveness of pharmaceutical care for patients aged 75 years or older, who were receiving prescriptions for five or more drugs. The authors concluded that pharmaceutical care was cost-effective compared with usual care, but the findings were subject to considerable uncertainty. The study methods were good and the results were clearly reported. The authors’ conclusions were appropriate.

Type of economic evaluation
Cost-utility analysis

Study objective
The aim was to assess the cost-effectiveness of pharmaceutical care for patients aged 75 years or older who were receiving prescriptions for five or more drugs.

Interventions
Pharmaceutical care was evaluated in the Randomised Evaluation of Shared Prescribing for Elderly people in the Community over Time (RESPECT) trial (RESPECT trial team. 2010, see ‘Other Publications of Related Interest’ below for bibliographic details). It was compared with usual care. In pharmaceutical care, pharmacists developed a care plan in consultation with the patient and with the patient’s general practitioner (GP).

Location/setting
UK/community care.

Methods
Analytical approach:
The analysis used the results from the RESPECT trial to determine the health and economic outcomes of the interventions over a one-year time horizon. An econometric difference-in-difference model was used to estimate the costs and benefits, using data from the clinical trial that randomised patients at different primary care trusts to different starting points for the intervention. The authors stated that the perspective of the UK NHS was adopted.

Effectiveness data:
The clinical data came from the RESPECT trial, in which 629 patients contributed to the survival analysis.

Monetary benefit and utility valuations:
The European Quality of life (EQ-5D) utility values were derived from a sample of 598 patients from the RESPECT trial.

Measure of benefit:
Quality-adjusted life-years (QALYs) were the summary benefit measure.

Cost data:
The cost categories were the prescribed drugs, laboratory tests, GP visits, home visits, in-patient services, and out-patient visits. The resource use data were from GP’s records for the participants, while the unit costs came from publicly available sources, including an annual survey, Drug Tariffs, and the price list from Chemist and Druggist. All costs were in UK pounds sterling (£) for the fiscal year 2004 to 2005.
Analysis of uncertainty:
The results of a Monte Carlo simulation were presented on a QALY-cost plane and a cost-effectiveness acceptability curve was produced. Subgroup analyses and scenario analyses were conducted.

Results
The costs for pharmaceutical care versus usual care were £2,001 versus £1,809 for usual care; a difference of £192. The QALYs gained were 0.614 with pharmaceutical care versus 0.595 with usual care; a difference of 0.019. The incremental cost-effective ratio of pharmaceutical care over usual care was £10,000 per QALY gained.

The cost-effectiveness acceptability curves showed that, at a threshold between £20,000 and £30,000, pharmaceutical care was cost-effective in between 77.5% and 81.2% of simulations.

Subgroup analysis found that, on average, pharmaceutical care was more cost-effective for younger patients on fewer drugs.

Authors’ conclusions
The authors concluded that pharmaceutical care was cost-effective compared with usual care, but the findings were subject to considerable uncertainty.

CRD commentary
Interventions:
The analysis appropriately compared the intervention with usual care in the authors’ setting.

Effectiveness/benefits:
The clinical data were from a randomised controlled trial and its details were published in a separate report. Little information on the methods of this trial was provided. The benefit measures were appropriate as they captured the impact of the interventions on the patients’ health. QALYs can also be compared with the benefits of other health care interventions. Discounting was not relevant due to the short analysis period.

Costs:
The cost categories were consistent with the stated perspective. The sources of cost data were clearly reported. The unit costs and quantities of resources were reported separately, allowing the replication of the analysis for other health settings. Other details of the analysis, such as the price year and currency, were reported. Variability in the costs was investigated in the sensitivity analysis and discounting was not relevant as the time horizon was one year.

Analysis and results:
The costs and benefits were synthesised appropriately and the results were clearly reported. The uncertainty was satisfactorily investigated. The analysis of subgroups by age and numbers of repeat drugs was satisfactorily conducted. The strengths and limitations of the study were clearly discussed.

Concluding remarks:
The study methods were good and the results were clearly reported. The authors’ conclusions were appropriate.

Funding
Funding received from the Medical Research Council, Eastern Hull Primary Care Trust, East Yorkshire Primary Care Trust, Selby and York Primary Care Trust, West Hull Primary Care Trust, and Yorkshire Wolds and Coast Primary Care Trust, UK.

Bibliographic details