A new GP with special interest headache service: observational study

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 compared headache management provided by trained general practitioners with a special interest with that provided by hospital neurologists. The authors concluded that headache management in the primary care setting resulted in greater patients' satisfaction and was less costly than in the secondary care setting. Non-randomised clinical data and the lack of detail on the cost estimates for neurology referral, mean that there is some uncertainty about the results. The authors' conclusions were appropriately cautious.

Type of economic evaluation
Cost-effectiveness analysis

Study objective
This study evaluated the impact of a training programme for general practitioners (GPs) in headache management, and the establishment of a headache service run by GPs with a special interest (GPwSIs). Health care provided by GPwSIs was compared with care provided by neurologists in hospitals, in terms of patients' satisfaction and case severity.

Interventions
The interventions were the establishment of a clinic, run by trained GPwSIs, providing services for patients, and training sessions on headache management for local GPs, registrars and the teachers of medical students. The care given to patients by hospital neurologists was the comparator.

Location/setting
UK/primary and secondary care.

Methods
Analytical approach:
The effectiveness and cost data were collected from a single-centre non-randomised controlled trial. The time horizon of the study was two years and the authors did not report an explicit perspective.

Effectiveness data:
The study was a single-centre non-randomised controlled trial. Overall, 211 consecutive patients with a headache were selected for participation. A total of 117 of these patients (55%) agreed to participate. Of these, 56 received care by hospital neurologists and 61 by the GPwSIs. It was reported that respondents and non-respondents were comparable in terms of baseline characteristics. The primary outcomes of the study included headache severity evaluated by means of a postal questionnaire, the Headache Impact Test (HIT-6), and patients' satisfaction evaluated using the General Satisfaction Questionnaire.

Monetary benefit and utility valuations:
Not relevant.

Measure of benefit:
The authors did not derive a summary measure of benefit. Therefore, a cost-consequences analysis was carried out.

Cost data:
The cost categories included the GP clinic session, clinic management, administration, reception, overhead costs, clinical management and supervision by GPwSI and by consultant neurologist. Resource use was based on actual data.
obtained during the effectiveness study, and the costs and quantities were reported separately. The costs of the GP clinic session seemed to come from GP practice accounts. The costs for the neurologist referral came from NHS reference costs. Training costs were not included. All costs were reported in UK pounds sterling (£) and appear to relate to the price year 2006 to 2007.

Analysis of uncertainty:
No sensitivity analysis was conducted to investigate uncertainty around estimates.

Results
After adjusting for age, sex and ethnicity there were no significant differences between the two groups in the frequency of severe headache, the adjusted odds ratio (AOR) was 1.05 (95% confidence interval, CI: 0.47, 2.32), or the frequency of limitations in daily activities due to headache, the AOR was 1.57 (95% CI: 0.72, 3.41).

The patients' satisfaction scores were higher in the GPwSI group, and patients were more likely to have received the care that they desired (AOR: 3.5, 95% CI: 1.4, 8.8).

Total costs were not reported separately for the two groups. However, the cost of a referral to a neurologist was reported to be £177 and to the GPwSI group was £155. The cost of the neurologist follow-up was £100 and the cost of the GPwSI group follow-up was £75.

Authors' conclusions
The authors concluded that headache management by GPwSI in the primary care setting resulted in greater patients’ satisfaction and was less costly than management in the secondary care setting.

CRD commentary
Interventions:
The interventions were clearly reported and it appears that the study was thorough in terms of the coverage of alternative interventions, including current practice, in the study setting.

Effectiveness/benefits:
The effectiveness data were based on a single non-randomised controlled trial. The sample was representative of the study population. Appropriate adjustments for demographic characteristics were made between the two groups. However, no power calculations were reported. The primary outcomes were well reported.

Costs:
The perspective was not explicitly stated, but it appears to have been that of the health service provider. As the analysis did not include the training costs, the cost-effectiveness of the GPwSI intervention may have been overestimated. However, this depends on whether the training costs for neurologists were included in their cost estimates. The costs were not explicitly reported for the neurology hospital care intervention, and total costs for the two groups were not presented. No sensitivity analysis was conducted around the estimates used, which limits the generalisability of the study findings.

Analysis and results:
The costs and benefits were not combined. Therefore, the study is a cost-consequence analysis. However, the level of reporting in the costing analysis was poor and the total costs for the two interventions were not separately reported, making it hard to draw robust conclusions for the economic impact of the two interventions. Uncertainty around the estimates used was not investigated, which limits the generalisability of the findings. The authors discussed some limitations to their study.

Concluding remarks:
Non-randomised clinical data and the lack of detail on the cost estimates for neurology referral, mean that there is some uncertainty about the results. The authors’ conclusions were appropriately cautious.
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