A randomized trial of group outpatient visits for chronically ill older HMO members: the cooperative health care clinic


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
Group outpatient visits by chronically ill elderly patients to their primary care physician and nurse.

Type of intervention
Secondary prevention.

Economic study type
Cost-effectiveness analysis.

Study population
Elderly (65 years and older) members of Colorado Permanente HMO who had a chronic illness (one or more of the following: heart disease, lung disease, joint disease, or diabetes) and who had a relatively high health care utilisation pattern.

Setting
Primary care in the Kaiser Permanente Medical Care program, Denver, Colorado, USA. A group model HMO in the Denver Metropolitan area, USA.

Dates to which data relate
No dates were given for collection of effectiveness data, resource use, costs or prices.

Source of effectiveness data
Effectiveness evidence was based on a single study.

Link between effectiveness and cost data
Costing was undertaken on the same patient sample as that used in the effectiveness study. Costing was undertaken both prospectively (administrative databases) and using chart reviews.

Study sample
Patients were eligible for the study if they were 65 years and older, had one or more chronic conditions (heart disease, lung disease, joint disease, or diabetes), and had made 1 or more outpatient calls per month and 1 or more calls to the nurse or physician every 2 months over the last 12 months. Eligible patients were sent a letter asking them to participate along with a baseline questionnaire. 419 patients were contacted but it was not explained how these were chosen. Three hundred letters were returned and of these 77 patients (26% of 300 and 18% of 419) showed no interest and a further 15(*) (5% of 300 and 3.5% of 419) were unable to take part, so that 208 patients entered the study. A
further 113 patients were recruited to increase the statistical power to detect differences, but exact calculations of the numbers needed were not given. 321 patients were entered into the trial: 160 in the group visit study-group and 161 controls. The study covered the patient panels of 6 internists. (*) = CRD reviewer's calculation.

Study design
The study was a randomised controlled trial. The study was single centre but covered the patient panels of 6 internists. The study was conducted over 12 months with no further follow up. Patients were randomised within each provider panel to control for differences in physician practice style.

Analysis of effectiveness
Analysis was based on intention to treat. This covered drop outs due to deaths and clinic transfers as well as non attenders. Primary health outcomes were improvement in health status (between baseline and after a 1 year follow-up period) and patient and physician satisfaction, all measured by questionnaire. The groups were comparable in terms of gender, living situation and disease conditions, with the exception of heart problems where the intervention group had worse prognoses than the comparators. The groups also differed in terms of mean age: control group patients were older on average. Self-reported physical and emotional health and functional status were similar between groups.

Effectiveness results
Patient satisfaction with care: percentage rating care as excellent: control; mean 27%, CHCC; mean 49% (P=.019).

Physician satisfaction with care - this was not measured statistically as the numbers involved were too small.

Clinical conclusions
Group visits for chronically ill elderly patients reduced repeat hospital admissions and emergency care use, delivered certain preventive services more effectively and increased patient and physician satisfaction.

Measure of benefits used in the economic analysis
Patient satisfaction.

Direct costs
The cost boundary was the HMO. Costs included in the analysis were: Non-CHCC office visits, calls, hospital cost, alternate care (skilled nursing facility), CHCC group visits and CHCC group visit coordinator. The costs of the project coordinator for time spent collecting data was included although this was part of research costs rather than operational costs. Outpatient utilisation costs were estimated from data on average office visit costs and based primarily on visit volume and provider salaries. Hospital charge data was taken from the administrative database. Costs of group visits were based on actual data. Telephone call costs were based on average call times and average nurse salaries. Other costs were actual costs taken from hospital records. Quantities and costs were analysed separately. No date was given for prices.

Currency
US dollars ($).

Sensitivity analysis
No sensitivity analysis was carried out.

Estimated benefits used in the economic analysis
Patient satisfaction with care - percentage rating care as excellent: control; mean 27%, CHCC; mean 49% (P=.019).

Physician satisfaction with care - this was not measured statistically as the numbers involved were too small.

Cost results
The total costs of the group visit cohort was $536,047 and of the control group $567,976. On a per-patient basis, this resulted in $279.19 for the CHCC group and $293.98 for the control group. The CHCC was therefore cheaper by $14.79 per patient. The study was of 1 year's duration so that discounting was not relevant.

Synthesis of costs and benefits
A synthesis of costs and prices was not undertaken since the intervention was the dominant strategy.

Authors' conclusions
Group visits for chronically ill elderly patients reduced repeat hospital admissions and emergency care use, reduced the cost of care, delivered certain preventive services more effectively and increased patient and physician satisfaction.

CRD COMMENTARY - Selection of comparators
The reason for the choice of comparators is clear.

Validity of estimate of measure of benefit
The follow up time was not long enough to reveal true health benefits. The sample size did not allow analysis according to subgroups of functional or general health status. The authors did not discuss how the differences in age and heart problems between groups might have affected the study results.

Validity of estimate of costs
No explanation of the means of estimation was given. The lack of dates in the study makes any generalisation of costs impossible.

Other issues
The study results were reported as generalisable to that group of the most robust elderly, who have an interest in participation in group care and who have limited functional impairment. The results regarding the cost analysis were consistent with previously published study findings. On the other hand no incremental benefit in terms of functional status was obtained for the intervention relative to the comparator, as opposed to previous evidence from other group care studies showing improved clinical outcome for the intervention group. It is not clear that a similar model, in particular the health education programme, could be adopted by a GP practice in the UK.

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