Nurse-led homeless intermediate care: an economic evaluation

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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 study examined the clinical and economic impact of a specialised homeless intermediate care to reduce mortality and morbidity in people residing in hostels. The author concluded that the project was beneficial as it positively affected patients’ health without increasing consumption of health care resources. The analysis presents several methodological limitations that affect the validity of the author's conclusions but that should be viewed within the framework of the pilot nature of the study.

Type of economic evaluation
Cost-effectiveness analysis

Study objective
The study examined the clinical and economic impact of a specialised homeless intermediate care to reduce mortality and morbidity in clients residing in hostels.

Interventions
Specialised homeless intermediate care aimed to promote faster recovery from illness, prevent unnecessary acute hospital admission, support timely discharge and maximise independent living. The service was delivered within the hostel setting using a case management approach. The intermediate care team was lead by a full-time nurse supported by a health worker and a general practitioner (GP) who provided a weekly 4.5-hour session at the hostel. The comparator was usual care provided at the hostel.

Location/setting
The UK Community (hostels) and primary care.

Methods
Analytical approach:
The analysis was based on a single study with a one-year time horizon. The author stated that the perspective was that of the National Health Service (NHS), which provided funding for the project.

Effectiveness data:
The clinical analysis was based on a comparative study with historical control. Patients enrolled were those perceived to be most at risk of death or disability at any one time. Thirty-four individual clients participated in the study during the study year (2009) and were compared to individuals at the hostel under examination in the previous year (2008). Variations of specific outcomes were examined in other hostels to identify changes in trends. The main endpoints were in-patient episodes and accident and emergency (A&E) visits.

Monetary benefit and utility valuations:
The author stated that quality of life before and after the implementation of the programme was estimated using EuroQol at 5 dimensions (EQ-5D) instrument and SF-12 survey.

Measure of benefit:
No summary benefit measure was used as a cost-consequences analysis appeared to have been carried out.

Cost data:
The economic analysis included the costs of secondary care usage such as hospital stay and A&E visits and the cost of
the intermediate care programme. Patterns of resource consumption in the year before the pilot study were compared with quantities of resources used over the year of the project, as reported in the clinical analysis. Resource use was taken directly from individuals included in the clinical analysis. Costs were presumably derived from official NHS sources. The price year was not reported. Costs were in UK pounds sterling (£).

Analysis of uncertainty:
Not carried out.

Results
The monthly average number of in-patient episodes was 10.08 days in 2008 and 2.33 days in 2009. The monthly average number of A&E visits was 8.42 in 2008 and 4 in 2009. Thus, the programme reduced secondary care usage. No similar trends were observed in other hostels, where in-patient episodes and A&E visits either increased or remained substantially unaltered. The author stated that the project had a significant impact on the general health sub-score of the SF-12 and the self-rated thermometer of the EQ-5D instrument.

The total costs of secondary care usage to the NHS were £168,000 in 2008 and £160,000 in 2009. The author concluded that the project was essentially cost neutral.

Authors' conclusions
The author concluded that the project was beneficial as it positively affected patients’ health without increasing the consumption of health care resources.

CRD commentary
Interventions:
The rationale for selection of the comparators was clear as the intervention under examination was compared to the conventional pattern of care in the chosen setting.

Effectiveness/benefits:
The study design presented some potential limitations due to the small number of patients involved, the retrospective nature of the comparison that did not show the similarities between intervention and control groups and the lack of statistical analyses that might have considered the impact of factors other than the study intervention (although the authors showed changes in other hostels for comparison). Selection bias could not be ruled out due to the non-randomised nature of the study. Several outcome measures were used in analysis and these included SF-12 health survey, Nurse Dependency Score, EQ-5D instrument and patient satisfaction. More information on the clinical side of the study was published in the full report. Two surrogate measures of the impact of the intervention on patients’ health (namely secondary care usage) were reported in the current publication. The author stated that the programme had a significant impact on these outcomes and client responses to the project were positive.

Costs:
The study adopted the perspective of the NHS. Only costs associated to the intermediate care programme and avoided hospitalisations were considered. Resource use was taken directly from the cohort of individuals selected and was representative of real-world data in the chosen setting. Sources of unit costs were not reported; it was likely that typical NHS sources were used. Costs were not varied and were treated deterministically. The price year was not provided and this reduced the possibility of reflation exercises.

Analysis and results:
Synthesis of costs and benefits was not relevant due to the cost-consequences framework. The issue of uncertainty was not investigated and only base case results were presented. It appeared that there were no statistical analyses of costs. The author stated that this should be considered as a pilot study and other economic evaluations had been conducted on this programme. The study results were specific to the author’s context and not transferable to other settings.

Concluding remarks:
The analysis presents several methodological limitations that affect the validity of the author’s conclusions but that should be viewed within the framework of the pilot nature of the study.