Bridging the gap between psychiatric hospitalization and community care: cost and quality outcomes

Chiverton P, Tortoretti D, LaForest M, Walker P H

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
Transitional case management versus traditional care for psychiatric inpatients.

Type of intervention
Treatment.

Economic study type
Cost-effectiveness analysis.

Study population
English speaking psychiatric inpatients aged 18 years or over.

Setting
The practice setting was an inpatient psychiatric unit within an academic medical centre. The economic analysis appears to have been carried out within the University of Rochester School of Nursing, New York, USA.

Dates to which data relate
Effectiveness and resource data were collected over an 18 month period (no other details were provided). The price year was not stated.

Source of effectiveness data
Comparative effectiveness data around case management versus traditional care for psychiatric inpatients were derived from a single study.

Link between effectiveness and cost data
Prospective costing was undertaken on the effectiveness study sample.

Study sample
243 participants were enrolled in the study: 121 in the intervention group and 122 in the control group. The average age was 56 years (range: 19 - 95 years). 68% (165) were male. t tests did not find any significant differences between any groups or categories of participant. 65% (158) had an axis I diagnosis of affective disorder, 18% (44) had schizophrenia, 6% (15) had dementia, 6% (15) had psychosis not otherwise specified, 3% (6) had organic mood disorder and 2% (5) had other diagnoses.
Study design
Block randomisation was used to assign patients to treatment regimens. The length of follow-up was 3 months (case management services). No loss to follow-up was reported.

Analysis of effectiveness
The basis for the analysis of the clinical study (intention to treat or completers only) was not stated. The primary health outcomes assessed were mental health status (using both the Beck Depression Inventory and Mini-Mental Status Examination (MMSE) scales) and service satisfaction. The latter was measured using two instruments developed by researchers using 9 items on a Likert scale of 1 to 3 where 1 represented 'very pleased', 2 'somewhat pleased', and 3 'not satisfied'. Hospital days and average length of stay were also recorded.

Effectiveness results
No statistically significant difference was found in any of the variables. In the intervention group a statistically significant difference (p=0.0001) was found on the Beck Depression Inventory from hospital discharge to home care programme discharge (that is, clinical depression improved). No significant changes were found on the MMSE scale to indicate a decline or improvement in cognitive status. 42 patients and 24 caregivers returned satisfaction questionnaires (27% total return rate). 96% of patient returns (45) stated that they were very pleased with the case management intervention whilst 95% of caregivers (25) were very pleased with the case management intervention. The control group spent a total of 408 days in hospital (intervention = 181) with an average length of stay of 25.5 days (intervention = 20.1).

Clinical conclusions
Transitional case management maintained a high level of consumer satisfaction and service quality compared with traditional care.

Measure of benefits used in the economic analysis
The authors did not develop a summary benefit measure. As such a cost-consequences analysis was performed based on the effectiveness results.

Direct costs
Quantities and costs did not appear to have been analysed separately. Inpatient costs, Psychiatric Emergency Department visit costs, inpatient readmission costs, and (outpatient-based) case management costs (3 month period) were computed from the perspective of a health service provider. No sources were provided. The price year was not given.

Statistical analysis of costs
Not performed.

Indirect Costs
Indirect costs included travel and documentation time, time taken to contact other providers or caregivers, supervision and mileage. No price year was given.

Currency
US dollars ($).

Sensitivity analysis
Not performed.

**Estimated benefits used in the economic analysis**
The reader is referred to the effectiveness results reported earlier.

**Cost results**
The total intervention costs were $329,054 (control) and $153,679 (intervention).

**Synthesis of costs and benefits**
Overall, the control saved $175,375 over the period of analysis.

**Authors' conclusions**
Transitional case management reduced costs whilst maintaining quality and having a high level of patient satisfaction.

**CRD COMMENTARY - Selection of comparators**
The selection of transitional case management versus traditional care for psychiatric inpatients was justified.

**Validity of estimate of measure of benefit**
As the intervention and comparator offered similar outcomes the benefits were expressed in terms of overall cost savings between the two treatment strategies.

**Validity of estimate of costs**
Costs were not sourced adequately and did not reflect a particular price year, thus limiting the generalisability of the results.

**Other issues**
The inter-rater reliability of the two satisfaction questionnaires used within the study was not addressed. No sensitivity analysis of the study methodology was carried out to take account of potential variability in the data.

**Implications of the study**
A more complete economic analysis which includes tangible economic outcomes, cost-effectiveness ratios, sensitivity analysis, price years, and so forth, for the treatment regimens would offer more validity in the determination of the cost-effectiveness of transitional case management versus traditional care for psychiatric inpatients.

**Source of funding**
Supported by Innovation in Patient Care Funds from the University of Rochester Medical Center in Rochester, New York.

**Bibliographic details**

**Original Paper URL**
http://www.apna.org/japna.htm