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Title A Systematic Review of Discharge Arrangements for Older People

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http://www.ncchta.org/execsumm/summ604.htm

Aim

To test the following hypotheses: a) there are too few comparable randomized controlled trials (RCTs) to allow definitive analysis; b) hospital discharge process, outcome, and cost effectiveness can improve with certain interventions; c) some interventions are more effective than others; and d) there are priority areas for future research.

Conclusions and results

Overall, 6972 articles were identified, whereof 320 proceeded to relevance and quality assessment. Data were extracted from 76 papers. Final synthesis was based on 71 articles representing 54 RCTs, 10 of which were from the UK (5 trials were excluded). Four types of intervention were identified: discharge planning, comprehensive geriatric assessment, discharge support, and educational interventions. The intervention types were not mutually exclusive.

No significant effect was seen on mortality at 3 months (10 trials), 6 months (14 trials), or 12 months after discharge (14 trials). Index length of stay was not significantly affected by the interventions (19 trials).

Intervention significantly reduced the risk for hospital readmission (readmission risk ratio (RRR) 0.851; 95% confidence interval (CI), 0.760 to 0.953; p = 0.005; 35 trials). This effect was preserved where a single professional, instead of a team, provided the intervention. The effect on readmission risk was most apparent in interventions both in hospital and in the patient's home. A similar trend was seen for interventions in the patient's home only. Little effect was seen for interventions provided only in hospital or by telephone.

None of the 4 intervention types showed major effects on mortality or length of hospital stay. Only educational interventions had an effect on RRR, but the trials were limited.

The evidence does not show that discharge arrangements affect mortality or length of hospital stay. This review suggests that arrangements for discharging older people from hospital can favorably affect readmission rates. Interventions in both hospital and the patient's home had the largest effect.

No evidence from RCTs supports the general adoption of discharge planning, geriatric assessment, or discharge support schemes as means to improve discharge outcomes.

Recommendations

More research is needed, particularly in the UK. Models that provide intervention across the hospital-community interface and/or education are worth considering. Future studies should record mortality, index length of stay, and readmission rates and should measure patient health outcomes, patient/carer satisfaction, and costs. To facilitate data pooling, trials should follow agreed standards with harmonized outcome measures. Economic analysis should be integral to future studies, which should be large and inclusive enough to detect important effects and ensure generalizability of results. Research to explore cross-national comparability of studies would be worthwhile.

Methods

Literature retrieval focused on RCTs. A research assistant scanned the titles and abstracts to exclude irrelevant studies. Two reviewers independently assessed the material, and disagreements were resolved by discussion. Reprints of potentially relevant studies were obtained and checked for relevance and quality before data were extracted from RCTs.

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The initial synthesis of results, built on a tabular summary of trial characteristics, comprises a qualitative overview. Where quantitative data and comparable studies were sufficient, standard approaches were used to combine the study results. Estimates of pooled effect sizes on all relevant outcome measures were obtained from the study-specific estimates using random effects models, allowing for between-study variations.

Further research/reviews required

See recommendations above.

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