A trial of early discharge with homecare compared to conventional hospital care for patients undergoing coronary artery bypass grafting


RESULTS

A total of 97 patients were randomised to conventional hospital care (n = 32) or early discharge (n = 65). LOS was shorter in patients in the early discharge compared with conventional care group (5.3 ± 8.0 days, p < 0.001) and 80% of patients were admitted on the day of surgery. The rate of in-hospital clinical events, re-admission rates, and quality of life at 12 weeks were similar in the two groups (table 1).

One patient in the early discharge group stayed in hospital for 75 days because of multiple complications and incurred a hospital cost of £69,593 and a 12 week follow up cost of £321. This patient’s data were censored from the main cost analysis. Hospital costs (including pre-admission clinic and homecare costs in the early discharge group) and costs for primary care surgery/home visits and all hospital visits following discharge were similar between the two groups (table 1). The costs of re-admissions were higher in the conventional hospital care group compared to the early

| Table 1 | Clinical outcomes, quality of life, and cost, in patients randomised to conventional hospital care or an early discharge programme |
|---------------------------------------------------------------|
| **Early discharge** | **Hospital care** | **Difference between cost of early discharge and hospital care** | **%95 CI** | **p Value** |
| In-hospital clinical events | 20/65 (30%) | 8/32 (25%) | –0.5 | (–5.8 to 4.8) | 0.55 |
| SF-36 PCS 12 weeks | 47.4 (11.8) | 49.0 (11.7) | 0.6 | (–2.7 to 3.8) | 0.73 |
| SF-36 MCS 12 weeks | 48.9 (8.2) | 49.2 (8.6) | –0.5 | (–5.8 to 4.8) | 0.85 |
| Total hospital LOS (days) | 5.3 (2.68) | 8.0 (1.78) | –2.7 | (–6.3 to 1) | 0.001 |
| Costs of hospital visits | £5644 | £5629 | £15 | £363 to 457 | |
| Costs of re-admissions | £320 | £42 | £254 | £919 to 348 | |

LOS, length of stay; MCS, mental component score; PCS, physical component score

*%95 CI for costs obtained using Bootstrap method; Hospital costs for the early discharge group include pre-admission clinic, in-hospital and homecare costs; Total costs include in-hospital, homecare, primary care, re-admission, and hospital visits costs.
discharge group (£492 v £185). The total costs at 12 week follow up were higher in the conventional hospital care group compared to early discharge (£6381 v £6127).

**DISCUSSION**

CABG is the most common major surgical procedure performed in the UK. We have shown that a planned early discharge homecare programme offers an effective alternative care management strategy to conventional hospital care without increasing community health costs. Hospital readmission rates, clinical events, and quality of life were similar. Our detailed cost analysis includes not only detailed hospital costs, but for the first time to our knowledge, community care costs after discharge.

The National Service Framework for coronary artery disease is expected to increase the number of CABG procedures to at least 750 per million of the population. At current growth rates this target should be met in 2005. An ability to meet higher targets is an important consideration. On a national level, if 20% (n = 5000) of patients undergoing CABG per year were treated with an early discharge programme, this could result in a saving of 13 500 bed days. The number of CABG procedures is, however, limited by a number of other factors including the availability of surgeons, theatre time, and intensive care beds. If we assume that the hospital has the capacity to operate on more patients per year, then decreasing LOS allows more operations, which can reduce waiting list times. There are important organisational and funding factors that need to be addressed before the policy could impact on waiting lists for patients requiring CABG or other cardiothoracic surgery. The increased cost of treating more patients, given that the most cost intensive activities are at the beginning of hospitalisation, is a matter that would need to be addressed by purchasers and providers.

Our study has some limitations. The sample size of 97 patients limited our ability to reach definitive conclusions about clinical and patient based outcomes. Our main cost analysis censors a patient that stayed in for a long time and incurred very high costs but we believe this approach is justified in this small study.

In summary, we found that an early discharge homecare programme is a viable alternative management strategy for patients requiring CABG. We believe this strategy would help achieve recommendations to move care into the community and the reduction in LOS would allow more admissions. A large multicentre study is required to determine whether this policy would have an impact on bed occupancy and waiting lists and to provide costs that are representative for the UK.

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**REFERENCES**


**ELECTRONIC PAGES**

Heart Online case reports: www.heartjnl.com

The follow electronic only articles are published in conjunction with this issue of Heart.

**Massive pulmonary artery thrombosis with haemoptysis in adults with Eisenmenger’s syndrome: a clinical dilemma**


Although the frequency of haemoptysis in Eisenmenger’s syndrome is well recognised, the high prevalence of pulmonary artery thrombus has been newly appreciated through the growing use of non-invasive imaging. Three patients with Eisenmenger’s syndrome with haemoptysis are reported who underwent computed tomography pulmonary angiography and cardiovascular magnetic resonance. Each patient was found to have aneurysmal dilatation of the right pulmonary artery with large laminar thrombus. These cases illustrate a rising clinical problem in this special population—that is, how to treat and prevent large pulmonary artery thrombosis in the setting of haemoptysis. The authors discuss their approach to these cases and the known literature.

(Heart 2004;90:c63) www.heartjnl.com/cgi/content/full/90/11/c63

**Left atrial phaeochromocytoma**

N Moorjani, J Kuo, D Wilkins

Phaeochromocytomas of the heart are very rare. This report describes the case of a 69 year old woman presenting with persistent hypertension and a left atrial phaeochromocytoma diagnosed by 131I-metaiodobenzylguanidine scintigraphy scanning. She was successfully treated by surgical excision with the aid of cardiopulmonary bypass and perioperative α and β adrenergic blockade.

(Heart 2004;90:c64) www.heartjnl.com/cgi/content/full/90/11/c64