

and treatment coupled with savings resulting from earlier return to work (table 3).^{11 12}

As these trials were not randomised, had different follow up periods and outcomes, and the cost estimates were obtained in different countries (Sweden and the USA) it would be unwise to generalise too widely from them. Nonetheless from a societal perspective, the savings that could accrue as the result of this improvement in return to work are impressive. In terms of health service costs, the reduction in health service utilisation as the result of rehabilitation amounted to about £100 per patient per year. Based on these figures it would take only two years to recoup the costs of rehabilitation for each patient and beyond two years there would be a net saving to the health service.

Conclusion

The current growth and investment in cardiac rehabilitation services in the UK appears justified in terms of mortality (cost per life year gained) and quality of life (cost per QALY). Moreover, there seems to be a substantial cost saving to the National Health Service viewed over a three year span or longer. There are hazards in extrapolating the findings in this way. First, it is based on a limited number of economic evaluations, often from non-randomised trials. Second, and perhaps particularly important, these studies have been performed in countries with different patterns of health care delivery and therefore differing costs. Finally, even in Britain, the exact components of individual programmes varies widely with the likelihood of

their cost effectiveness being equally variable. As with many other common medical interventions there is an urgent need to derive information from the UK and, therefore, to advocate that any trials of cardiac rehabilitation should also contain information on the costs.

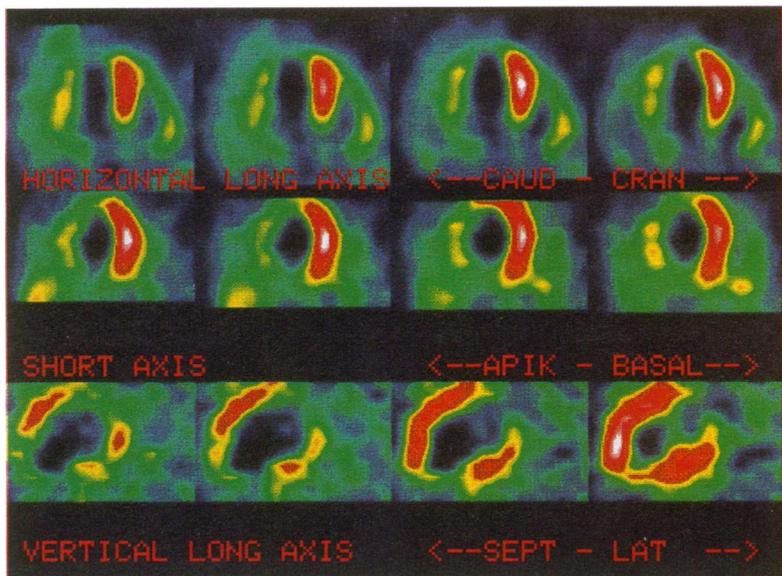
ROD TAYLOR
BRIAN KIRBY

Postgraduate Medical School,
University of Exeter,
Barrack Road,
Exeter EX2 5DW, United Kingdom

- 1 Report of a working group of the British Cardiac Society: cardiac rehabilitation services in the United Kingdom. *Br Heart J* 1995;73:201-2.
- 2 US Department of Health and Human Services. *Cardiac rehabilitation clinical practice guidelines*. No 17. Washington, DC: AHCPR Publication No. 96-0672. October 1995.
- 3 Jones DA, West RR. Psychological rehabilitation after myocardial infarction: multicentre randomised controlled trial. *BMJ* 1996;313:1517-21.
- 4 Oldridge NB, Guyatt GH, Fuschler M, Rimm A. Cardiac rehabilitation after myocardial infarction: combining data from randomized trials. *JAMA* 1988;260:945-80.
- 5 O'Connor GT, Buring JE, Yusuf S, Goldhaber SZ, Olmstead EM, Paffenbarger RS, *et al*. An overview of randomized trials of rehabilitation with exercise after myocardial infarction. *Circulation* 1989;80:234-44.
- 6 Horgan J, Bethell H, Carson P, Davidson C, Julian D, Mayou RA, Nagle R. Working party report on cardiac rehabilitation. *Br Heart J* 1992;67:412-18.
- 7 Oldridge N, Furlong W, Feeny D, Torrance G, Guyatt G, Crowe J, *et al*. Economic evaluation of cardiac rehabilitation soon after myocardial infarction. *Am J Cardiol* 1993;72:154-61.
- 8 *OECD Health Systems, Facts and Trends 1960-91*. (Health Policy Studies No. 3. Vol 2.) Paris: OECD, 1993.
- 9 *Hospital Community Health Service Price Index, 1994-95*. London: DHSS, 1995.
- 10 *British Heart Foundation Register of cardiac rehabilitation programmes*. December 1995.
- 11 Levin LA, Perk J, Heberk B. Cardiac rehabilitation—a cost analysis. *J Intern Med* 1991;230:427-34.
- 12 Ades PA, Huang D, Weaver SA. Cardiac rehabilitation predicts lower hospitalization costs. *Am Heart J* 1992;123:916-21.

IMAGES IN CARDIOLOGY

Cardiac sarcoidosis



Rest thallium-201 SPECT scintigraphy was performed in a 31 year old man with cardiac sarcoidosis proved by right ventricular endomyocardial biopsy. The tomograms revealed patchy tracer uptake defects in the apex, septum, and inferior wall of the left ventricle. A diagnosis of pulmonary sarcoidosis had been made when the patient was 26 years old because of bilateral hilar lymphadenopathy. During the subsequent years, progressive exertional dyspnoea and severe congestive heart failure developed. The patient refused cardiac transplantation and, despite intensive medical treatment including steroids and methotrexate, he died from terminal heart failure 11 months after first admission.

RAINER ZIMMERMANN
ARMIN HAUNSTETTER
WOLFGANG KÜBLER