Cardiac rehabilitation: results of a national survey

ALLISON THORPE, SIAN GRIFFITHS, CHARLES F GEORGE

Abstract

The provision of cardiac rehabilitation (CR) services in the UK was surveyed in March 2003. Three hundred questionnaires were sent to Directors of Public Health based in Primary Care Trusts. One hundred and eighty-five replies were received, a 61.7% response rate. In 72.8% of cases CR services were provided in both the acute and community sectors, but in 22.8% services were only available in the acute sector. CR services were patchy, lacked integration and in only 31.3% of Primary Care Trusts (PCTs) were they described as adequately funded.

Many patients are not receiving this important treatment modality after either myocardial infarction or cardiac surgery.

Key words: cardiac surgical procedures, depression, myocardial infarction, prevention, rehabilitation.

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Introduction

Cardiac rehabilitation can promote the recovery of people who have sustained a myocardial infarction (MI) or who have undergone coronary artery bypass surgery (CABG). Meta-analysis of randomised controlled trials has shown that cardiac rehabilitation reduces mortality by 20–25%.[1] Exercise programmes improve physical aspects of recovery, but alone are insufficient to reduce risk, morbidity or mortality or to improve psychosocial well-being.[2]

The National Service Framework for Coronary Heart Disease (NSF for CHD)[3] set standards for the prevention, diagnosis and treatment of coronary heart disease. Standard No. 12 of the NSF states that: 'NHS Trusts should put in place agreed protocols/systems of care, so that prior to leaving hospital, people admitted to hospital suffering from coronary heart disease have been invited to participate in a multi-disciplinary programme of secondary prevention and cardiac rehabilitation. The aim of the programme will be to reduce their risk of subsequent cardiac problems and to promote their return to a full and normal life'.

Clinical guidelines to cardiac rehabilitation have been published and endorsed by the Royal College of Physicians and the British Cardiac Society.[4,5] Programmes need to be based on the assessment of individual needs rather than a regimented process of attending a fixed number of talks and exercise sessions. Almost all patients are suitable for rehabilitation and there is evidence of cost-effectiveness. However, a survey carried out in 1999 suggested that fewer than half the 150,000 patients who survive a heart attack annually in the UK receive any form of rehabilitation.[6] Disadvantaged social groups included women, the elderly, those in rural locations and others drawn from the ethnic minorities.

This paper examines the results of a questionnaire-based survey of cardiac rehabilitation services provided within the UK. It was intended that the information obtained would provide a baseline from which the future impact of community-based schemes financed by the Big Lottery Fund could be assessed.

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Methods

A questionnaire was designed within the Faculty of Public Health and the British Heart Foundation. A copy of the questionnaire appears in box 1. The questionnaire sought information on the availability of cardiac rehabilitation services, their location and future plans; the extent to which they were integrated with other National Service Frameworks; and ways in which the services have been monitored and evaluated.

The questionnaire was distributed to all PCTs' Directors of Public Health in March 2003. A follow-up request was sent to those who had not replied after an interval of four weeks.

Results

Out of a total of 300 questionnaires distributed, 185 replies were received, giving a response rate of 61.7%.

Access to services: where are services provided?

In all, 184 of the 185 replies contained a response to this section. The majority of respondents (72.8%) said that services were provided in both the acute and community sectors, but 22.8% reported acute service provision only. A minority (4.3%) reported community provision only.

Box 1. A copy of the survey questionnaire

Q.ID.NO

Cardiac Rehabilitation Services: A baseline survey

The Faculty of Public Health Medicine is working with the British Heart Foundation to develop a picture of cardiac rehabilitation services across the country. To find out more about the baseline of programme provision for rehabilitation services within the United Kingdom we would be grateful if you could take a few minutes to fill out this simple questionnaire for your PCT.

PCT Name..... NHS Region.....

Access to Services

		Y	N
i.	Cardiac rehabilitative services in our PCT are:		
	a. Available both in the hospital and in the community as an integrated programme	☐	☐
	b. Available through the acute trust only	☐	☐
	c. Community based	☐	☐
	d. Not available	☐	☐
	e. Other (please comment).....		
ii.	Community based services are housed in:		
	a. NHS Facilities only	☐	☐
	b. In Local Authority facilities only	☐	☐
	c. In both NHS and Local Authority facilities	☐	☐
	d. Other (Please state).....		
iii.	Cardiac rehabilitation services:		
	a. Have referral criteria agreed by PCT	☐	☐
	b. Readily available for all who need them	☐	☐
	c. Available, but limited by lack of resources	☐	☐
	d. Being considered, but held back by lack of resources	☐	☐
	e. Neither available, nor being considered	☐	☐
	f. How were the criteria for referral established (please comment)		

Service Provision – please tick all that apply

		Y	N
iv.	Funding for current services for cardiac rehabilitation is:		
	a. Adequately resourced	☐	☐
	b. Poorly funded	☐	☐
	c. Under threat	☐	☐
	d. Please describe areas where funding could be improved in your PCT, i.e. Nurse time, exercise facilities, etc.		
v.	Cardiac Rehabilitation Services are integrated with:		
	a. Exercise Referral Schemes run by local authority	☐	☐
	b. Diabetes NSF plans and programmes	☐	☐
	c. Older People's NSF plans and programmes	☐	☐
	d. Cardiac NSF plans and programmes	☐	☐
	e. Work in isolation	☐	☐
	f. Other.....		

Monitoring and Evaluation

		Y	N
vi.	Evaluation		
	a. Service provision is regularly evaluated	☐	☐
	b. Service provision is never evaluated	☐	☐
	c. The evidence base for service provision is regularly updated	☐	☐
	d. Protocols are in place to ensure that service matches best practice	☐	☐

vii. Evaluation methodology and tools used – please describe

Comments:

Please reply to: Allison Thorpe, Institute of Health Sciences, Old Road, Headington, Oxford, OX3 7LF by 31st March 2003. email address: allison.thorpe@dphpc.ox.ac.uk

Although community and hospital facilities were available in all Strategic Health Authority areas, services were variable at PCT level in terms of venue, level of access and the phase of rehabilitation covered. Five PCTs reported a total lack of community venues (figure 1).

The responses indicated that the survey had been carried out at a time of transition. Previously the emphasis had been on the acute sector as a service provider, but many respondents reported that community-based services were being piloted. However, there was no guarantee of future funding to continue the service.

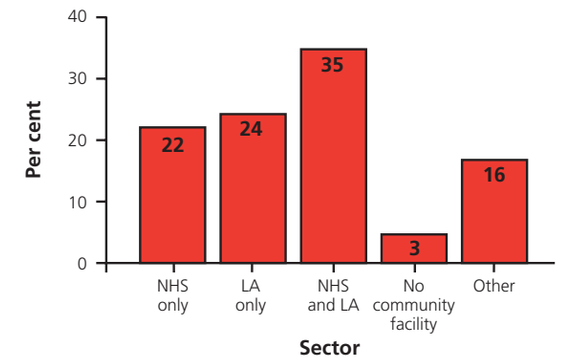
Lack of integration of services across the sector was a consistent finding. One rural PCT highlighted variations in provision within its area of responsibility. Furthermore, the use of multiple providers of services to cover a large geographical area resulted in variability and inconsistency in the population's access to services.

Insufficient funding was identified as a major issue. This meant that many patients were systematically excluded from access to cardiac rehabilitation services – for example, those diagnosed with angina or heart failure.

Location of community-based facilities

Five (3%) PCTs reported a total lack of community provision: three of them were in the London regions, one in Essex and one in Trent. Twenty-six (16%) reported that venues were provided

Figure 1. Location of community-based facilities



Key: NHS = National Health Service; LA = local authority

Figure 2. PCTs involved in setting referral criteria (n=143)

Key: PCT = primary care trust

by agencies other than the NHS or local authority. They included private gyms, charitable foundations, church halls and local universities. These arrangements were more prevalent in Norfolk, Suffolk and Cambridgeshire than in other locations. Local authority and NHS facilities accounted for 81% of the venues in which cardiac rehabilitation programmes were held.

Despite some innovative approaches and the development of partnerships, a recurring theme was lack of permanent venues for rehabilitation, as well as issues of cost, including the availability of free places (and the need for some people to self-fund).

Referral criteria

One hundred and forty-three of the 185 respondents (77.3%) answered this question. In 99 instances, PCTs stated that they had been involved in setting referral criteria for cardiac rehabilitation services (figure 2). However, 44 reported a lack of involvement and in many such instances, the referral criteria had been set by the acute NHS Trust and ante-dated the existence of the PCTs. Two PCTs noted that they had difficulties with the current guidelines and were either not supportive or had not formally agreed to their implementation. However, the involvement of cardiac networks in the setting of referral criteria was noted by PCTs in 10 of the 28 Strategic Health Authority areas, suggesting an increasing emphasis on multidisciplinary, multisectoral decision-making.

Table 1. Additional funding needs for cardiac rehabilitation

To develop accessible community resources
- Accommodation
- Equipment
- Heart Manual provision

Additional staffing (full- or part-time)
- Dieticians
- Exercise instructors
- General practitioners with special interest
- Nurses
- Occupational therapists
- Physiotherapists

Expand the service to include patients with:
- Acute coronary syndromes
- Angina
- Heart failure

The need for additional funding

Response rates for the NHS regions varied markedly but the majority of respondents reported limited resources, which had an adverse effect on staffing and led to the need to prioritise service provision. Overall, only 31.3% of respondents reported that their funding was adequate.

Specific needs for additional funding are shown in table 1.

Respondents tended to draw a clear distinction between adequate funding of 'core services' for those who had sustained an MI or had heart surgery and the need for additional funding to extend the services to all those who would benefit. PCTs were clear that funding for cardiac rehabilitation services was a shared responsibility. The need for improved partnership working, particularly with local authorities and NHS acute trusts, was a recurring theme, as was the need to secure 'mainstream funding'.

Overall, the responses suggested that without increased funding for staff time and training, cardiac rehabilitation services could not meet the requirements of the NSF for CHD and that they were failing to deliver an equitable and accessible service for all patients who could benefit from them (figures 3 and 4).

Integration with other services

The majority of respondents reported that services were integrated with the NSF for CHD (96.6%) and local exercise plans (67.5%). Only 21 (11.6%) reported that their services were integrated with other relevant NSFs. However, the need for links was recognised, for example, with smoking cessation clinics and health promotion. It is noteworthy that diabetes services were the least likely to be integrated with cardiac rehabilitation services.

Figure 3. Funding for services (n=185)

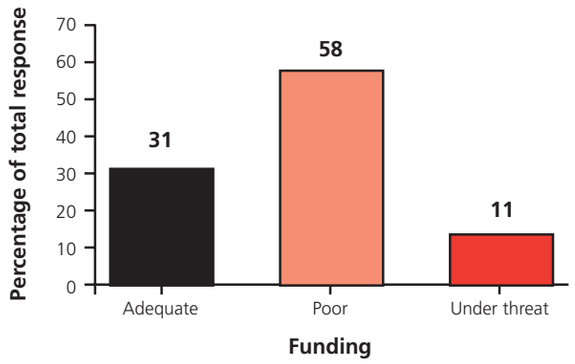
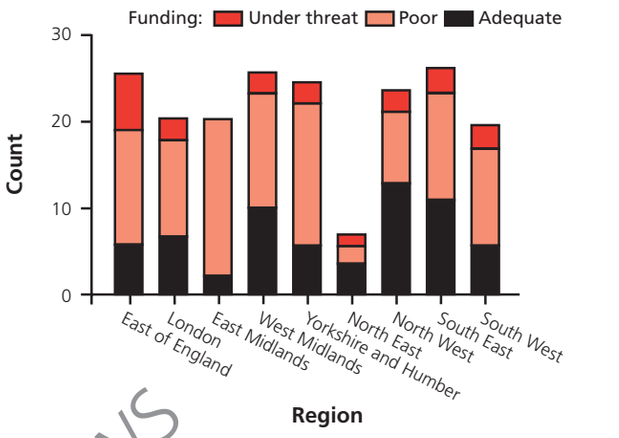


Figure 4. Reported service funding (n=185)



Monitoring and evaluation

Although 87% of respondents reported that their services were evaluated regularly, the tools and audit criteria used differed from one PCT to another. Data collection was compromised by lack of staff and there was also an issue of ownership. Many PCTs reported that the acute NHS Trust was responsible for evaluating services or that a lead PCT had taken the responsibility. As a result, several respondents said: 'I wouldn't know about evaluation'. Nevertheless, the majority of respondents reported that their evidence base was updated regularly and that protocols were in place in 86.4%.

Discussion

The purpose of cardiac rehabilitation is to restore individuals with coronary heart disease to their optimal level of physical, psychological, social and vocational well-being, by offering treatments which are based on individual needs assessment and delivered by a multidisciplinary service. One of the limiting factors in the past has been that the delivery of rehabilitation programmes has been hospital-based. For many patients, particularly those living in rural areas, this can constitute an impediment due to lack of availability of transport. However, alternative models exist, such as those pioneered at Papworth Hospital and the administration of the Heart Manual[8] by practice nurses.

The reforms introduced in *Shifting the Balance of Power*[9] profoundly change the nature of relationships between primary and secondary care. PCTs now have 75% of the NHS resources to improve the health of their population, to secure the provision of services and to integrate health and social care.[10] Guidance from the Department of Health has emphasised local freedom and encouraged innovation to meet the challenge faced, whilst at the same time reinforcing the need to deliver programmes outlined in the NHS plan and the NSFs. PCTs face a challenging agenda to bring all these strands of policy together and work effectively with each other and their Strategic Health Authorities. Local authorities can also play a key role in supporting cardiac rehabilitation in the community and contributing to their funding. The Director of Public Health has a vital role to play in this process.

In response to the emailed questionnaire, we obtained replies from 61.7% of those contacted. Although the picture is incomplete, this survey confirms the patchy provision of cardiac rehabilitation, inadequacy of secure funding and the relative lack of community-based venues. It is clear that the survey was carried out at a time of change, with a significant involvement of PCTs in the drawing-up of criteria for the limited services which are currently available.

It is important that these deficiencies are addressed in order to meet the needs of those who are currently excluded from or who drop out of existing rehabilitation programmes. In addition, there are potential advantages for patients if the services are co-ordinated with others for people with diabetes. However, it is

Key messages

- Cardiac rehabilitation (CR) is an effective treatment modality for patients with coronary heart disease
- The current questionnaire-based survey demonstrates that CR remains an acute sector-focused activity, with almost a quarter of Primary Care Trusts having no community provision
- Services are patchy, with poor integration between sectors. Furthermore, many are threatened by inadequate or insecure funding
- Consequently, many patients with coronary heart disease are not receiving an important treatment designed to restore individuals to their optimal level of physical, psychological, social and vocational well-being

clear that the involvement of Primary Care Trusts has been achieved in the drawing-up of criteria for the limited services which are currently available.

Finally, this survey should serve as a baseline against which future developments in community-based provision of cardiac rehabilitation services can be measured.

Acknowledgements

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Conflict of interest

None declared.

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