Cardiac rehabilitation services: are they provided equitably?

The WORLD Health Organization (1993) defines cardiac rehabilitation as activities required to influence favourably the underlying cause of disease as well as the best possible physical, mental and social conditions, so that people may preserve or resume as normal a place as possible in the community. Cardiac rehabilitation must be integrated within secondary prevention services.

This article discusses equity of service within cardiac rehabilitation service provision, and describes how a hospital in Essex audited its service, identified areas that were not meeting the needs of a particular client group, and took measures to address this deficiency.

Background

The National Service Framework (NSF) for Coronary Heart Disease (DoH, 2000a), requires all NHS trusts to have in place agreed protocols or systems so that prior to discharge, people admitted to hospital with coronary heart disease (CHD) are invited to participate in a multidisciplinary programme of secondary prevention and cardiac rehabilitation. The aim of the programme should be to reduce their risk of subsequent problems and to promote their return to a full and normal life.

In The NHS Plan (DoH, 2000b) the government set out guidelines for a radical action plan for health, to be implemented over the next 10 years. It contained a set of promises and priorities that aimed to put people and patients at the heart of the health service. It promised more power and information for patients, increased funding to improve services and made the reduction of mortality rates in cancer and CHD top priorities.

The NSF for CHD was set up to establish standards for the prevention and treatment of CHD in England that would lead to major improvements in quality and access of care. The aims were:

- To specify interventions that are known to be effective;
- To identify models of care to deliver interventions;
- To develop audit tools and performance indicators to ensure an acceptable and equitable standard of delivery;
- To indicate the milestones by which progress can be monitored;
- To institute a system for review and update of care in accordance with medical developments.

The NSF set 12 standards that services were expected to achieve, covering aspects of care and conditions:

- Reducing heart disease in the population;
- Preventing heart disease in patients at high risk;
- Heart attack and other acute coronary syndromes;
- Stable angina;
- Revascularisation;
- Heart failure;
- Cardiac rehabilitation.

The standard for cardiac rehabilitation states that this form of rehabilitation improves outcomes such as prognosis and function for people with the following manifestations of CHD: post-myocardial infarction (MI), before and after revascularisation, stable angina, heart failure, heart transplant and other interventions.

It describes cardiac rehabilitation as an important component of both acute care and secondary prevention, but says its impact is limited unless the individuals most likely to benefit are targeted and offered the service.

Research has found that cardiac rehabilitation can promote recovery, enable patients to achieve and maintain better health and reduce the risk of death in people who have heart disease (NHS Centre for Reviews and Dissemination, 1998). The process should be delivered in four phases:

- Phase one: the acute hospital stage prior to discharge;
- Phase two: the early post-discharge period;
- Phase three: four weeks after MI or eight weeks after surgery, in which a structured programme of exercise and health education is offered;
- Phase four: community-based exercise and long-term maintenance of healthy lifestyle (DoH, 2000a).

National and local indicators would be used to judge the performance of individual organisations to ensure equity of service provision and care.

Framework goals

The initial NSF goal was for more than 85 per cent of people with a primary diagnosis of acute MI or post-coronary revascularisation to be offered cardiac rehabilitation. The aim should then have been to extend the service to include those with stable angina or heart failure.

However, it is not enough simply to offer cardiac rehabilitation services if people do not take them up. Reported attendance rates have varied from 21 to 53 per cent (Schulz and McBurney, 2000).

Poor uptake has been identified in women, older patients and those from minority ethnic groups (Bowman et al, 1998). Other factors identified as affecting uptake were socioeconomic deprivation, distance from the programme, level of education, and misconceptions as to content and benefit of programmes (NHSCRD, 1998). Research into predictors of programme participation found that physician recommendation was most powerful (Ades et al, 1992).

The NSF targeted these areas by recommending that special consideration be made to ensure that the needs of these groups were met. It identified the need for more accessible programmes that involved both acute and primary care trusts.

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Hospital check
At Basildon Hospital in Essex the cardiac rehabilitation team was keen to discover how its service compared with others, both locally and regionally, how it could be improved and how it could share strategies and ideas with other professionals in the field.

A meeting involving rehabilitation staff from hospitals in Essex and London revealed a number of common complaints and similar, identified shortfalls in service provision. The most common were lack of trained staff, recruitment problems and rotating physiotherapists resulting in a lack of continuity of care. Other members of the multidisciplinary team, such as dietitians and pharmacists, were only available sporadically, again due to staff shortages in these areas.

For a number of London hospitals a particular concern was lack of gym space for the exercise component of phase three programmes. This resulted in classes being held in community facilities, which restricted access for patients at high risk such as post-MI and those awaiting revascularisation procedures.

One hospital reported only a 35 per cent uptake for its programme – it was suggested that this was partly due to the mobile, multi-ethnic, socially deprived nature of the population in this area. Concerns were voiced about this and measures such as increased endorsement through education were being investigated.

Statistics provided by attendees suggested that more patients were accessing programmes post-coronary bypass surgery, particularly in Basildon Hospital. This was attributed to good liaison between the cardiac surgery specialist nurse, who ran post-discharge follow-up clinics, and referring hospitals. An information booklet with contact numbers for local rehabilitation programmes had been designed with a new system of referral back to the patient’s own area or referring hospital.

The uptake post-angioplasty was lower; only 450 of an estimated 1,723 patients had accessed rehabilitation programmes. Suggested reasons for this were a lack of preoperative information on the benefits of rehabilitation and a lack of awareness of local programmes. A shorter hospital stay for these patients was also a possible reason. The opinion was that a standardised referral system was needed to ensure that all these patients were followed up and offered cardiac rehabilitation.

Communication between acute and primary care also needed to be improved, to ensure that all aspects of preventive measures were being implemented.

Service review
Staffing levels in Basildon were currently sufficient, with three rehabilitation nurses and a secretary, although a significant increase in people invited to attend the programme was expected. The service had a full-time physiotherapist, who had a cardiac rehabilitation exercise qualification, and good support from dietetic and pharmacy teams. A voluntary system provided transport to the programme for people who required it.

The service had been allocated two days of gym time facilitating twice-weekly morning and afternoon sessions. This enabled patients to attend classes that were convenient for them.

Due to increased waiting times other options were explored to enable provision of a further session. A local leisure facility was used to run a class conducted by a member of the cardiac rehabilitation team with the support of an exercise instructor with a British Association of Cardiac Rehabilitation qualification. Safety issues were highlighted, such as provision of an automated defibrillator and maintenance of gym equipment, and areas of responsibility agreed and documented. Only patients classed as at low risk with no comorbidity factors would be able to access this particular session due to its community location.

Extra funding was approved to cover the cost of the extra session. It was anticipated this would be offset by meeting targets relating to patients accessing rehabilitation programmes. The ideal standard would be within two weeks after angioplasty, four weeks after MI and eight weeks after cardiac surgery. This measure would address the issue of service provision in the short term.

Results
Between April 2000 and April 2001, 598 patients with MI were documented, of whom 285 (47 per cent) accessed the rehabilitation programme (Fig 1). Of these 598, 143 were given nurse-led clinic appointments. These were offered to patients who declined to participate in the phase three component or were considered by medical staff to be unsuitable due to multiple comorbidity. Of these 143, there were 18 referrals for further medical intervention or follow-up, 124 were discharged into the care of their GP, and one was a non-attendee for no given reason.

The phase three programme had no exclusion criteria for age or disability – exercise programmes were adapted to meet individual needs while those who could not participate were invited to attend the education session. Patients who wished to continue exercising were referred to phase four community-based programmes.

There is currently no revascularisation or angiography service at Basildon, but an audit of post-angioplasty patients between July 2001 and July 2002 found that only 25 per cent attended the rehabilitation programme. This was definitely an area of concern.

Measures to address lack of provision
A member of the cardiac rehabilitation team visited all patients awaiting hospital transfer for urgent or priority angiograms. The patients were given verbal and written information about the procedure and possible outcomes. The benefits of cardiac rehabilitation were discussed and contact telephone numbers provided.

All patients discharged with an outpatient or routine appointment for an angiogram were invited to attend the programme in the interim period on a low-intensity modified exercise programme.

The outpatient benefits of cardiac rehabilitation were explained again to patients when they attended the...
The Angina Plan, non-attendance outcomes for patients attending nurse-led clinics

Aims
The Angina Plan (2003) was developed to address the lack of cardiac rehabilitation services available for patients with angina. The primary aim of the programme was to provide education and support for patients with angina, with the hope that it would improve their quality of life and reduce the need for medical intervention.

Methods
The programme consisted of a patient-held booklet and written information, which was delivered by a facilitator. The booklet was designed to correct misconceptions about angina and provide information on diet and exercise. The first method for delivering the programme was to design an information booklet specifically for angina patients, with numbers for local support groups and leisure facilities. The second method was to develop a structured education package similar to that used to provide rehabilitation in the community.

Results
The uptake of the rehabilitation programme was low, with only 47% of patients accessing it. The reasons for non-attendance were multifactorial, including logistical issues such as the lack of available clinic space and funding. It was initially planned that a member of staff would train as a facilitator for The Angina Plan, and would then introduce this to patients in a 30-minute initial session. Subsequent follow-up would be by telephone at one, four, eight, and finally 12-week intervals to revise goals and lifestyle modifications. Problems anticipated with this proposal related to the lack of available clinic space, or facilities for the initial appointment, and staffing for the follow-up telephone calls.

Discussion
The development and implementation of any effective health strategy requires motivation and a willingness to seek alternative solutions to problems. Ultimately, however, despite a willingness to monitor practice and attempt to address shortfalls in the care provided, increased funding and resources will be required to meet some of the government’s health targets. The National Service Framework for Coronary Heart Disease (DoH, 2000) states that cardiac rehabilitation should be offered to all patients with a manifestation of CHD such as angina or heart failure. However, equity of service and care provision does not appear to be evident in the availability of or access to cardiac rehabilitation for these groups. This is quite simply the result of inadequate funding and provision of resources.

In Basildon the funding and resources required to improve the rehabilitation service provided have been addressed by members of the CHD Collaborative and senior hospital management. An extended service is planned in order to meet increasing demands.

References
The Angina Plan (2003) is available from: www.anginaplan.org.uk

Extending the service
The NSF states that the cardiac rehabilitation service should be extended and offered to patients with angina and heart failure. There is also a need to expand the heart failure nurse specialist on offering exercise programmes to patients with heart failure. While no current structured programme is in place, the anticipated recruitment of a second nurse should allow implementation.

The last group of patients were those with stable angina. The large number in this patient group meant it was impossible to offer a structured cardiac rehabilitation programme in the hospital. It was therefore decided to look at other methods of meeting their needs.

The first method was to design an information booklet specifically for angina patients, with numbers for local support groups and leisure facilities. The second method was to develop an education package similar to that used to provide rehabilitation in the community.

In addition The Angina Plan, a cognitive-behavioural programme consisting of patient-held work, resource book and audio cassettes for relaxation, is used to help patients identify risk factors for angina and set goals for modification of their lifestyle (The Angina Plan, 2003).

The plan also offers advice on diet and exercise, corrects misconceptions about angina and discusses stress management.

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A suggested solution was to liaise with primary care to provide shared care and hand over to the primary care team at an agreed interval, such as after week two. Further audit was suggested to assess the benefits of the plan, such as monitoring admissions to hospital. Reduced numbers of admissions and GP surgery visits would suggest long-term health benefits and improved quality of life for this patient group. Both of these projects are being considered as alternatives to a structured in-hospital rehabilitation programme.

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