

# Introducing Phase 4 Cardiac Rehabilitation

**A step by step guide**



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## **Introduction**

The purpose of this guide is to explain the steps involved in introducing Phase 4 Cardiac Rehabilitation. It provides some background information on cardiac rehabilitation and outlines all the components required for the successful implementation of the Phase 4 programme.

This guide seeks to answer most of the questions you may have about introducing Phase 4. However, if you have any further queries please do not hesitate to contact us.

Thank you for your interest in Phase 4.

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## What is Cardiac Rehabilitation?

Cardiac Rehabilitation is the process of encouraging and facilitating individuals make the transition from a state of illness, back to a state of health that is as near to normal as possible. It is a multidisciplinary approach that aims to facilitate individuals and help restore and maintain their optimal physical, psychological and vocational status. However, as well as facilitating recovery it also aims to promote secondary prevention and long-term changes in lifestyle.

Cardiac Rehabilitation Programmes are invaluable for improving patients' quality of life, confidence and longevity and they empower people to manage their own chronic illness. The emphasis of the Cardiac Rehabilitation Programme in the 38 cardiac rehab centres in Ireland is on education and support, provided in a thorough and systematic manner.

Cardiac Rehabilitation services have been in development since the mid-1970's. In 1998, CR was available in 29% of relevant hospitals. Following the publication of the CVD strategy this increased to 95% in 2005. Full time equivalent staff numbers went from 46 to 135 and there was a 6-fold increase in patients receiving a CR service (from 696 in 1996 to 4210 in 2005). (Delaney et al 2006). Unfortunately the last twelve months has seen staff cutbacks in at least 6% of Cardiac Rehab units - undermining the ability of rehabilitation programmes to achieve maximum potential in terms of effectiveness.

CR is predominately offered to individuals following acute Myocardial Infarction, Percutaneous Coronary Intervention, Coronary Artery Bypass Surgery and Heart Valve surgery, although evidence now suggests that the programme is very effective for heart failure and peripheral arterial disease patients also. Cardiac Rehabilitation in Ireland is managed by a Cardiac Rehab Co-ordinator in each of the 38 centres who direct patients to services needed and harness resources of the wider hospital and community system. The cardiac rehab co-ordinator works with and is supported by Cardiologists, Physiotherapists, Nurses, Occupational Therapists, Dieticians, Pharmacists, Psychologists and Social Workers.

## What is Phase 4 ?

Cardiac Rehabilitation is a continuous process commencing in hospital following an acute event and continuing on discharge into the community. It can be divided into four distinct phases.

- **Phase 1:** This phase relates to the period of hospitalisation following an acute cardiac event. The duration of this phase may vary depending on the initial diagnosis, the severity of the event and individual institutions. During this phase, individuals typically undergo a risk factor assessment and risk stratification as well as receiving information regarding their diagnosis, risk factors, medications and work/social issues. Involvement and support of the partner and family is facilitated and encouraged. This phase also includes early mobilisation and adequate discharge planning.
- **Phase 2:** This phase encompasses the immediate post discharge period, which is typically a period of four to six weeks. It focuses on health education and resumption of physical activity, however the structure of this phase may vary dramatically from centre to centre. It may take the format of telephone follow up, home visits, or individual or group education sessions. Either way, some form of contact is maintained with the patient, facilitating ongoing education and exchange of information.
- **Phase 3:** This phase is sometimes erroneously referred to as the 'exercise' phase. However it incorporates exercise training in combination with ongoing education and psychosocial and vocational interventions. The duration of Phase 3 may vary from six to 12 weeks, with patients required to attend a CR unit two to three times weekly for structured exercise and other lifestyle interventions.
- **Phase 4:** This phase constitutes the components of long-term maintenance of lifestyle changes and professional monitoring of clinical status. It is when patients leave the structured Phase 3 programme and continue exercise and other lifestyle modifications indefinitely. This may be facilitated in the CR unit itself or in a local leisure centre. Alternatively, individuals may prefer to exercise independently and Phase 4 may involve helping them set a safe and realistic maintenance programme.

## Phase 4 in Ireland

Many CR centres offer phase 4 educational programmes for patients, such as sessions on risk factors, healthy diet, re-motivation etc. Some centres offer annual risk factor assessment. Examples of Phase 4 programmes currently running include:

- DCU provide Phase 4 exercise classes for patients who attend Beaumont hospital.
- Croi in the west of Ireland provide many secondary prevention sessions.
- Some hospitals provide phase 4 exercise classes in gym settings. For the most part these classes are run by CR staff.
- In St. Colmcille's Hospital Loughlinstown Phase 4 gym instructor training was piloted, similar to the BACR model of training but adapted to the Irish context. To date in the Dublin Mid Leinster area stretching from Gorey to Monkstown nine gyms have had personnel trained up and most are now providing Phase 4 structured supervised exercise classes for patients who have attended Phase 3 CR programmes in SCH and Arklow outreach programme.

## **Why Introduce a Phase 4 Programme ?**

Currently the majority of acute general hospitals provide a comprehensive Phase 3 cardiac rehabilitation program for cardiac patients. However there is little follow up or information on whether these patients continue to maintain optimum levels of exercise and maintain healthy lifestyle guidelines after finishing a Phase 3 cardiac rehabilitation programme.

The philosophy of cardiac rehabilitation is that patients should by their own efforts achieve and maintain a healthier lifestyle. It is believed that providing a Phase 4 cardiac rehabilitation program i.e. an ongoing opportunity for these patients to continue exercising and maintain a healthier lifestyle is a necessary and worthwhile addition to Cardiac Rehabilitation.

## **How Does the Phase 4 Model Work ?**

The aim of this initiative is to improve long term care of cardiac patients in the community by strengthening the knowledge of exercise instructors who may offer a service to this client group.

The training consists of a comprehensive resource manual/guide, 2 days training and assessment at delivery of Phase 4 CR programmes. Direct links with local leisure/ gym centres and local Phase 3 CR programme is an intricate part of this model.

### **Purpose of Phase 4 Model**

The main purpose of the Phase 4 model is to To set up a Phase 4 CR instructor course and classes in local community.gym settings for CHD clients. Other objectives include:

**Promote Cardiac Rehab in Primary care**

**Promote adherence to exercise**

**Reduce recurrence of cardiac events**

**Encourage and motivate clients**

Develop links with the community

Establish referral pathway from hospital to community settings

To formalise links communication links with Leisure centres and cardiac rehab patients.

Possibly expanded to other chronic disease management groups.

Encourage referrals by CR units, GP's etc.

## Developing Phase 4 – Step by Step

### 1 Decision by CR Team to introduce Phase 4

The delivery of the Phase 4 training course is the responsibility of local cardiac rehabilitation professionals. The essential start point for introducing Phase 4 is decision by the CR team that its service would be enhanced by a Phase 4 programme and that the team can meet the time and resource demands required by the programme. These demands include:

- Meeting and liaising with Gyms / Leisure Centres
- Inspecting gyms/leisure centre to ensure correct equipment and emergency procedures are in place.
- Training fitness staff to become Phase 4 Exercise instructors. Entry requirements for fitness staff are:

#### Entry Requirements

(equivalent of UK NVQ Stage 1 exercise instructor or relevant degree)

#### ITEC Level 11

150 Hours teaching exercise to adults in previous 2 years

Endorsed by local Phase 3 team

- Selecting clients to refer to Phase 4 classes
- Follow up with gyms / leisure centres to ensure compliance with training and other requirements.

### 2 Approval from Hospital to proceed

The CR Team must have the full support of its Medical Director and Hospital Management if Phase 4 is to be implemented successfully. Discussions around resources and commitment to Phase 4 need to be held at the very outset.

### 3 Selection of Leisure Centre and Agreement of Terms

The CR team need to liaise with the gym / leisure centre in the following way:

- Establish contact with local gyms
- Link with Manager
- Site visit of gym to determine gym facilities (space/equipment/general facilities etc)
- Establish emergency protocols
- Identify gym instructors and select participants for Phase 4 training course.

### 4 Training of Leisure Centre Staff

Training of gym /leisure centre staff takes place over a two day period. Training manual and training presentations are available from the IACR. CR staff delivering the training should have the following skills / competencies:

#### Experienced as:

Clinician

Teacher

Consultant

Researcher

Experience and competency in CR delivery: Phase 1/2/3/4

#### Demonstrate knowledge in :

Exercise prescription

Exercise physiology

Behavioural change

Risk factors and management

Cardiovascular emergency procedures

Nutrition

Adult education

#### Nursing

SRN

CCU course/or equivalent

Cardiac Rehabilitation qualifications:

CR H Dip/MSc

Other qualifications relevant to area

### **Physiotherapy:**

Registered Physiotherapist

### **Extra courses:**

BACR exercise professional courses: 2 day courses

ESC courses: CR and Advanced CR 2 day courses

Euro action courses: 2 day course

### **Life Support:**

BLS/AED training

ACLS training

### **Additional Skills:**

Communication skills

Principals of adult learning

Presentation skills

## **5 Selection of clients suitable for participation**

This is an ongoing process with clients progressing through Phase 3 cardiac rehabilitation. Those deemed suitable for Phase 4 can be identified and informed about the programme.

## **6 Monitor and Review**

The CR team will need to make regular visits / spot checks to ensure the Phase 4 classes are being held as per the training provided. In addition those trained will need to be updated / re-certified every two years.

## **Costs & Resources**

The main costs for the CR team are as follows:

- Production of training manuals
- Miscellaneous training expenses (refreshments etc..)

It is assumed the hospital will have a suitable training room and necessary equipment.

The resources required are the time given by the CR team and other hospital staff over the two day training period.

## **Insurance**

This is a local issue for each hospital and the CR team should seek clarification from their hospital management that the introduction of a Phase 4 programme is covered by the hospitals insurance policy. In addition each gym/leisure centre must have appropriate insurances in place.

## **What Next ??**

When you are in a position to move forward with the introduction of Phase 4 please submit a written request for the materials along with a brief summary of your implementation plan. The manual and other training materials will then be made available to you. Requests and any queries should be sent to Barbra Dalton, IACR Co-ordinator at [bdalton@irishheart.ie](mailto:bdalton@irishheart.ie)

## Useful Contacts

Irish Association of Cardiac Rehabilitation [www.iacr.info](http://www.iacr.info)

Irish Heart Foundation [www.irisheart.ie](http://www.irisheart.ie)

British Association of Cardiac Rehabilitation [www.bcs.com](http://www.bcs.com)

## **Appendix One: Rationale for Introducing Phase 4**

It is widely accepted that Cardiac Rehabilitation (CR) programmes aim to restore patients to an optimal quality of life. These programmes include physical activity, education, support and counselling for the individual and their families, to facilitate necessary lifestyle changes (Pell, 1997).

The physical fitness of cardiac patients may deteriorate to varying degrees, depending on the limitations on activities imposed by their cardiac condition and the length of time since the onset of cardiac debilitations. Cardiac rehabilitation programmes were developed to enhance the improvement in physical fitness of cardiac patients so that they might resume their normal pre-cardiac-event activities safely and as soon as possible. (Fletcher, Balady, Blumenthal and Caserperson 1996).

The majority of CR programmes in the UK are hospital-based combined programmes including exercise, psychological and educational interventions (Thompson, Bowman, Kitson, deBono and Hopkins 1997). Meta-analysis of the effectiveness of combined programmes suggests that they can achieve a reduction in cardiac mortality of 20-26% over a 1-3 year time frame (Jolliffe, Taylor, Thompson, Oldridge and Ebrahaim 2000).

It is clear that many patients who would benefit from CR are not receiving it (Jolly, Gregory, Sandercock, Greenfield, Rafferty, 2003). This is due to both service and patient factors such as location of CR centres and accessibility. Uptake rates for CR have been reported to range from 15-59% (Pell, Morrison, Blatchford, and Dargie 1996).

CVD remains a major public health problem in Ireland. In 1998 a government survey found an under-provision of CR Services in Ireland (McGee, 1998). In 1999 one of the recommendations of the cardiovascular health strategy group concluded that every hospital that treats patients with heart disease should provide a cardiac rehabilitation service. (DOHC 1999)