



ACPICR

Association of Chartered Physiotherapists
In Cardiovascular Rehabilitation



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Role of the Physiotherapist in Cardiovascular Rehabilitation

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1 Introduction

The Association of Chartered Physiotherapists in Cardiovascular Rehabilitation (ACPICR) is committed to supporting the vital role that physiotherapists have within the multidisciplinary team (MDT) delivering comprehensive cardiovascular rehabilitation (CR).

The aim of this document is to describe the specialist skills, knowledge and experience of a CR physiotherapist, and to outline the potential career pathway for physiotherapists within this speciality.

This document is aimed at all stakeholders working with, and as part of, CR services. These stakeholders include physiotherapists, other MDT members, service leads/managers, and commissioners.

2 Cardiovascular Rehabilitation (CR) – Evidence Base and Delivery

The British Association for Cardiovascular Prevention and Rehabilitation (BACPR) defines CR as: “The coordinated sum of activities required to influence favourably the underlying cause of CVD, as well as to provide the best possible physical, mental and social conditions, so that patients may, by their own efforts, preserve or resume optimal functioning in their community and through improved health behaviour, slow or reverse progression of disease” [1].

There is a robust evidence base which consistently demonstrates the favourable impact that CR has for those with cardiovascular disease (CVD). In those who have experienced myocardial infarction (MI) and/or coronary revascularisation, engaging with and completing the exercise component of a CR programme improves fitness and quality of life and reduces hospital admissions, and is associated with an absolute risk reduction in cardiovascular mortality from 10.4% to 7.6%, when compared to those who do not engage [2]. For individuals with heart failure (HF), CR reduces hospitalisations and acute HF episodes and improves fitness and quality of life [3].

The evidence base is continuously evolving with a number of studies highlighting potential benefits from exercise-based CR in patients across a wide range of CVD manifestations. From this growing evidence base the BACPR [1] states that CR should be offered to those with:

- acute coronary syndrome
- coronary revascularisation
- heart failure
- stable angina

- cardiac defibrillators and resynchronisation devices
- heart valve repair/replacement
- heart transplantation and ventricular assist devices
- Adult congenital heart disease (ACHD)

The BACPR highlights that there is some evidence that other groups may benefit [1]:

- atrial fibrillation
- Non-obstructive coronary artery disease (NOCAD)
- peripheral artery disease (PAD)
- spontaneous coronary artery dissection (SCAD)

Thus the CR patient population can have a wide ranging diagnostic profile. The population is increasing in age too - with advances in medical and surgical management, survival from acute cardiac events is increasing and people are living longer with CVD. This, plus an ageing population means that the CR population is becoming increasingly elderly and multimorbid, thus increasingly complex.

The BACPR advocates a comprehensive approach to CR delivery. Delivery should meet six key standards: identification and referral, MDT, initial assessment, delivery of programme, final assessment and audit and evaluation. And CR services should include five core components: health behavior change and education, lifestyle risk factor management (encompassing exercise and physical activity), psychosocial health, medical risk management and long-term strategies [1].

Notably, whilst the broad evidence base for the efficacy of CR is exercise focused, exercise is one sub-component of this multimodal intervention. In providing a holistic approach, CR practitioners require a breadth of knowledge and understanding across all aspects of this comprehensive model of care.

It is also important to note that the exercise and physical activity sub-component can take many forms. There is substantial evidence indicating that there is no difference in clinical or quality of life outcomes across various modes of CR delivery (e.g. centre-based, home-based, web-based, app-based, multi-modal approach) [4]. Indeed, the COVID-19 pandemic necessitated that CR teams think flexibly and creatively in providing exercise and physical activity prescription [5]. In the post-pandemic era, continuing to offer a variety of CR formats provides a potential viable solution to overcoming patient-reported barriers to engagement and ensures that CR is patient-centred [5].

3. The Physiotherapy Career Pathway

There are various routes and degree options for entry to a physiotherapy career in the UK, and over 60 higher education institutions (HEIs) offering pre-registration programmes [6]. A BSc in physiotherapy or integrated masters (providing additional skills in leadership, management and research) is available to those undertaking as a first degree, whilst those who already have undergraduate degree can access pre-registration MSc or doctorate degrees. In England, BSc and MSc apprenticeships are also available, offering the opportunity to combine work-based and academic learning [6].

Currently, all UK pre-registration programmes are accredited by the Chartered Society of Physiotherapy (CSP) and approved by the Health and Care Professions Council (HCPC). The HCPC regulate healthcare professionals in the UK, quality assuring the healthcare sector by requiring that those on its register meet standards encompassing a comprehensive range of aspects of practice [7]:

- Communication and social media
- Confidentiality
- Health, safety and wellbeing
- Person-centred care
- Raising concerns, openness and honesty
- Record keeping
- Reflective practice
- Scope of practice
- Supervision, leadership and culture
- Sustainable practice

As new graduates, physiotherapists have the opportunity to work in NHS 'rotational' posts, gaining experience across a wide range of specialities/multidisciplinary teams, assessing and managing patients with a wide range of complex conditions. Beyond new graduate level, physiotherapists have access to a flexible career pathway with the opportunity to specialise and develop their knowledge and skills across four integrated pillars of practice: clinical, leadership, research and education [6]. Each of the four UK nations has its own framework to guide and support this career development from enhanced practice to consultant/advanced practice level [8].

Development of knowledge and skills, across the four pillars, can be supported in a variety of ways, for example:

- taught and self-directed HEI modules
- supervision and mentoring
- reflective practice
- peer observation and learning

The four pillars of practice are detailed as follows:

Clinical

The specific skills will depend on the scope of practice and area of work. Many clinical specialities have developed specific career frameworks.

Depending on the speciality, key areas for clinical skills development may include:

- public health and health promotion
- shared decision making and personalised care
- advanced communication and motivational interviewing
- safeguarding, mental and physical health assessments (including advising on fitness to work, via the AHP Health and Work Report [9])
- consultation and clinical decision making
- interventions (including rehabilitation, non-medical prescribing [10] and injection therapy)

Leadership

As they progress through the career pathway, physiotherapists have the opportunity to develop knowledge and skills equipping them to lead transformation of person-centred care. This transformative approach extends beyond practice, service and professional boundaries and requires that they develop and display confidence and resilience in managing complex and unpredictable situations.

Research

This pillar encompasses:

- undertaking of research / research activities
- supporting others to undertake research / research activities
- appraisal and application of research to practice
- evaluation of practice and service delivery
- monitoring regional, national and international impact

Throughout their career pathway, from pre-registration HEI learning, physiotherapists gain an understanding of the importance of embedding research in their practice, and of fostering a research culture within their place of work.

Education

Lifelong learning is core to physiotherapy practice. Physiotherapists have the opportunity to regularly review their learning and development needs to ensure that they reflect all four pillars of practice. They are supported to educate themselves and others and to advocate for and contribute to organisational learning to inspire existing and future staff.

4. The Role of Physiotherapists in CR

Physiotherapists have played a key role in the development and growth of CR in the UK since its inception in the 1970s, and the physiotherapist is a core member of the CR MDT. The ACPICR is responsible for leading development and writing of the UK Standards for Physical Activity and Exercise in the Cardiovascular Population [5], and physiotherapists were traditionally the main healthcare profession responsible for leadership of the exercise and physical activity component of CR.

However, delivery of the exercise component of CR is a diversifying, and is now also often led by exercise instructors and physiologists. The career pathway for clinical exercise physiologists (CEPs) has developed considerably in recent years and the profession has recently successfully attained recognition from the Academy of Healthcare Sciences [11]. The Chartered Society of Physiotherapy advocates a collaborative approach to exercise and physical activity delivery [12], and this aligns with the ethos of the BACPR Exercise Professionals Group (BACPR-EPG), which has representation across all three professions, with the ACPICR providing physiotherapy representation.

The BACPR-EPG provides guidance on the essential competences and minimum qualifications required to lead the supervised exercise component of CR [13,14]. These are:

- Core knowledge
- Professional behavior
- Communication
- Prepare, adapt and restore the environment and equipment
- Preparing the individual for supervised exercise
- Assessment
- Physical activity planning and exercise prescription
- Lead and/or deliver the supervised exercise session
- Forward planning
- Managing the unwell individual
- Educational materials
- Service planning and management
- Service evaluation

Within this increasingly varied exercise delivery landscape, the physiotherapist continues to firmly meet these competences and brings to the CR team a wealth of knowledge and skills, from across the four pillars of practice. These mean that the physiotherapist is key to ensuring high quality, safe and effective comprehensive CR delivery - across the six standards (table 1) and five core components (figure 1) outlined by the BACPR [1].

Table 1: Physiotherapy knowledge and skillset applied across the six standards for CR

Standard 1 – Identification and Referral

Undergraduate training, clinical placements and post-graduate rotations across a wide variety of health and social care settings provide physiotherapists with the skills to appropriately prioritise referrals and manage a busy clinical caseload.

Physiotherapists also develop sound skills in appraising and synthesising clinical information to generate a comprehensive background to underpin a patient's initial assessment.

Standard 2 – MDT

Physiotherapists are trained to place strong emphasis on a multidisciplinary approach to patient management and are experienced in working as part of a team, often in leadership roles, in both acute hospital and community settings.

With a clear understanding and awareness of the roles of those working across health and social care, physiotherapists are able to appropriately refer patients on to services/input they require.

Standard 3 – Initial Assessment

Physiotherapists work autonomously to assess, diagnose and support patients to identify their needs and goals. This requires in-depth knowledge of disease presentation, anatomy and physiology, pathology and evidence-based treatment options.

Their wide breadth of clinical knowledge enables them to employ a problem-solving approach in providing flexible, holistic management across a range of complex and multiple co-existing pathologies which extend beyond their specialism.

Standard 4 – Delivery of Programme

The combination of clinical and academic training, plus post-graduate continuous professional development (CPD), provides physiotherapists with the knowledge and skills to deliver, and co-ordinate delivery of, comprehensive cardiovascular prevention and rehabilitation.

Leading delivery of the exercise component is not exclusive to the physiotherapist, and an interdisciplinary team which includes other exercise professionals (e.g. clinical exercise physiologist, sports scientist or exercise instructor) will have an enhanced skillset.

Standard 5 – Final Assessment

Physiotherapists gain a strong understanding of the NHS healthcare system, the interaction between (primary, secondary and tertiary) health and social care, and the importance of communication and collaboration with other professionals and agencies.

This provides physiotherapists with a deep insight into the patient journey and an appreciation of its variation and complexity from diagnosis and management, to achievement of independent long-term self management and maintenance of health.

Standard 6 – Audit and Evaluation

From undergraduate level, physiotherapists develop new knowledge and understanding through critical reflection, evaluation and independent research.

Physiotherapy maintains strong links between clinical and academic settings. This means that the profession responds to developments in practice, education and research and actively ensures that its workforce continues to be fit for purpose.

Working across acute and community settings, physiotherapists use their sound understanding of exercise and physical activity to advise and prescribe training across a range of complex patients of varying ability.

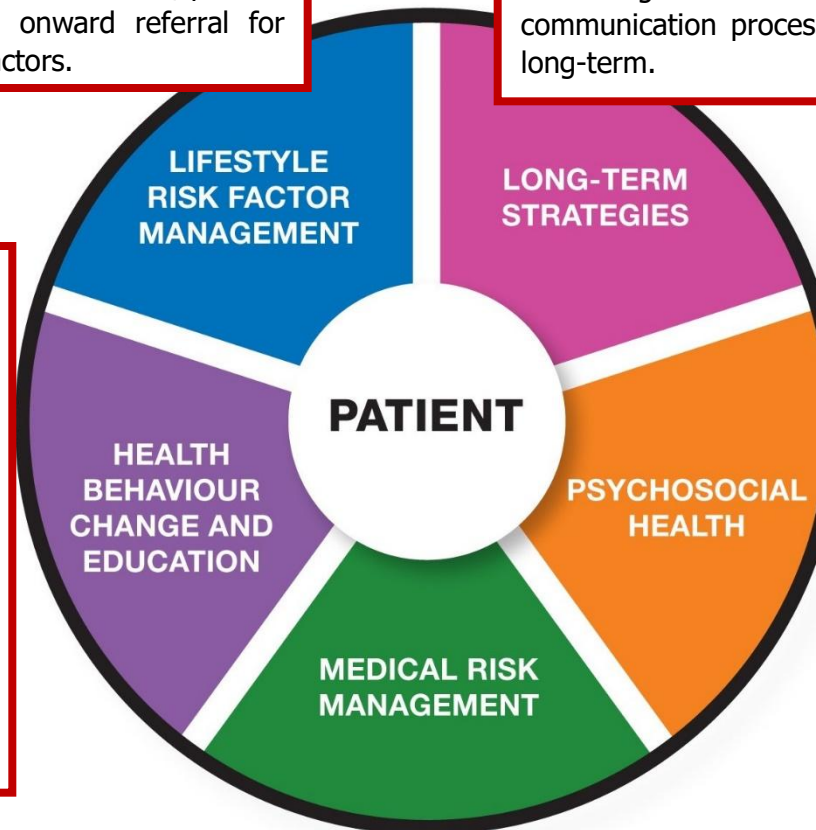
Their experience in working as part of a multidisciplinary team brings a breadth of understanding of lifestyle risk factors, plus an awareness of when and how to initiate onward referral for specialist input in addressing specific risk factors.

Physiotherapists use a variety of outcome measures to monitor treatment effect and achievement of patient goals, and interpret the findings to advise patients on long-term strategies to support achievement and maintenance of healthy behaviour.

They develop close links with community exercise providers, facilitating seamless onward referral and a two-way communication process to help best support the patient in the long-term.

With exposure to a diverse range of patients and clinical settings, physiotherapists are skilled communicators, capable of effectively employing a variety of appropriate strategies to support patients in negotiating health behaviour change.

From undergraduate level, physiotherapists gain experience in delivering written and verbal health education to (individual or groups of) patients, peers, colleagues and wider clinical teams.



Physiotherapists are trained to employ a holistic approach to patient assessment, and to consider the physical, psychological and social factors that may influence intervention outcome. Many will have undertaken clinical placements and/or post-graduate rotations in mental health settings.

Physiotherapists can apply and interpret the results of psychosocial screening tools and recognise when to refer patients for specialist psychological assessment and intervention.

Physiotherapists have the opportunity to advance their clinical practice in becoming independent non-medical prescribers, enhancing their clinical assessment and management skills and contribution to patient care.

With an extended role within the multidisciplinary team, a prescribing physiotherapist can help streamline the patient pathway, improving patient outcomes, and workforce capacity.

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