Essential competences and minimum qualifications required to lead the supervised exercise component in (early) core cardiac rehabilitation

The aim of the statement is to provide information on the essential qualifications, knowledge, skills and abilities required to lead* the clinically supervised exercise component of cardiac rehabilitation (CR). It is recommended that this statement should be read in conjunction with the BACPR Standards and Core Components for Cardiovascular Disease (CVD) Prevention and Rehabilitation, 2017 and the ACPICR Standards for Physical Activity and Exercise in the Cardiac Population, 2015. This document is not intended for those supporting the delivery of the supervised exercise component - further guidance is available in the BACPR EPG Physical Activity and Exercise Competences in Cardiovascular Prevention and Rehabilitation 2012.

*‘Lead’ is defined as the person(s) taking overall responsibility for the supervised exercise component of his/her cardiac rehabilitation service.
Background And Rationale For This Position Statement

The evidence for exercise-based CR is strong. Ensuring that patients get appropriate individualised advice, and an optimal exercise prescription from practitioners who have specialist knowledge, skills and competences is essential. Exercising patients with cardiovascular disease does carry a small but significant risk of adverse events, however appropriately prescribed safe and effective physical activity minimises this risk. It is extremely important that programmes are delivered by practitioners who base their practice on the highest level of evidence.

The BACPR Standards And Core Components For Cardiovascular Disease Prevention And Rehabilitation (2017)

The BACPR has defined minimum standards and core components for cardiovascular prevention and rehabilitation services. These standards aim to ensure that all service providers, health professionals and service users understand the purpose, aims and objectives of CR. Physical activity advice and exercise prescription, diet, and smoking cessation form the key elements of the lifestyle risk factor management component outlined in this standards document. The content of all core components should be collaboratively developed by the multi-disciplinary CR team and delivered by competent and appropriately skilled professionals who work within their scope of practice. The team should also include a physician who has sustained interest, commitment and knowledge in cardiovascular disease prevention and rehabilitation.

The Exercise Component Of Clinically Supervised Early (Core) Cardiac Rehabilitation Programmes

The exercise component within the clinically supervised CR programme includes structured exercise training, and advice about the resumption of activities of daily living, occupational activities and leisure pursuits.

The following boxes outline two statements which refer to the exercise component of the clinically supervised CR programme in hospital, community or home settings and provide guidance on the competences and qualifications required to lead this component:

The lead practitioner must:

- hold one of the qualifications together with evidence of relevant specialist continuing professional development (CPD) as outlined in Statement 1
- be responsible for ensuring that all essential competences outlined in Statement 2 are being met individually or collectively by the CR team. The BACPR EPG Physical Activity and Exercise Competences in Cardiovascular Prevention and Rehabilitation 2012 should be used to assess a health professional’s competence in physical activity and exercise prescription
- BACPR also strongly recommends that the lead practitioner has achieved the BACPR Advanced Exercise Professional Award **

Statement 1: Minimum qualifications and registration requirements

There are a range of qualifications and registrations that each practitioner may hold. To lead and deliver exercise in early (core) CR, in addition to competences outlined in statement 2, practitioners should fulfil at least one of the following:

- **Degree/diploma in Physiotherapy** with current HCPC registration, membership of CSP and membership of the Association of Chartered Physiotherapists in Cardiovascular Rehabilitation (ACPICR)
- **Degree in Sport and Exercise Science or Exercise Physiology**, registered as a British Association of Sport and Exercise Sciences (BASES) Certified Exercise Practitioner or BASES Accredited Sport and Exercise Scientist
- **Recognised REPS Level 4 Cardiac Disease (Rehab) qualification in exercise and fitness** e.g. BACPR Exercise Instructor Training qualification
- **In addition** all practitioners should be a member of BACPR and must demonstrate evidence of relevant CPD (eg at least one relevant course or conference attendance every two years) and related specialist experience
Statement 2: Essential competences

Specific experience, knowledge and skills are required to lead a safe and effective exercise component within a CR programme. These essential competences are listed below and may be met by one practitioner that has all these competences and therefore can lead the exercise component or may be met collectively by the CR team including the exercise professional.

Experience of:
- ✔ delivering exercise in the early (core) CR environment
- ✔ planning, leading and evaluating exercise sessions for the cardiac population
- ✔ working effectively as a team member

Knowledge of:
- ✔ relevant national standards, policies and guidelines, and application to practice in this field
- ✔ health related benefits of regular physical activity and exercise
- ✔ applied cardiovascular anatomy and exercise physiology, and principles of exercise prescription for cardiovascular and resistance training
- ✔ coronary heart disease (including signs and symptoms and recognition of disease progression) its implications for risk stratification and exercise programming
- ✔ a range of cardiovascular conditions and co-morbidities encountered on a typical CR programme; the programming adaptations and contraindications to exercise
- ✔ the purpose and effects of cardiovascular medications, including and any exercise related considerations
- ✔ common cardiac investigations and interventions and relevance of results to exercise programming
- ✔ the process of behaviour change and appropriate models and strategies that are used to assess a patient’s current state of physical activity behaviour and support change towards achieving long term adherence to a physically active life

Skills and Abilities to:
- ✔ make clinical decisions regarding the suitability and adaptability of each patient’s exercise programme (clinical leadership)
- ✔ conduct screening and a comprehensive assessment of a patient. This includes interpretation of clinical investigations, conducting appropriate exercise assessments to determine baseline functional capacity, and the ability to apply these findings to prescribe and progress an appropriate exercise programme and re-evaluate changes as part of both the patient’s and the programme’s health outcomes
- ✔ risk stratify and prescribe safe and effective exercise programmes that are appropriately individualised
- ✔ competently lead and instruct the exercise component in early (core) CR
- ✔ monitor, evaluate and adapt an individual’s exercise programme whilst considering co-morbidities and the complexity of their cardiac condition
- ✔ respond and manage emergency situations including cardiac arrest (See Joint Resuscitation Council (UK)/BACPR statement 2018)
- ✔ choose and use appropriate educational, counselling and motivational techniques with individuals and groups of patients in order to guide individuals to be physically active
- ✔ give appropriate evidence based advice for discharge planning in relation to long term activity goals / independent activity
**BACPR Advanced Exercise Professional Award**

This award has been designed to quantify, qualify and unify qualifications and CPD from different exercise disciplines to enable individuals from those different disciplines to fully meet the requirements of this BACPR EPG 2019 Position Statement and demonstrate knowledge, skills and abilities required to lead the clinically supervised exercise component of early (core) CR.

**Application/eligibility requirements**

Underpinning qualifications must be one of the following:
- Chartered Physiotherapist OR
- BACPR Exercise Instructor Qualification OR
- BASES Certified Exercise Practitioner or Accredited Sport & Exercise Scientist

**Underpinning Experience (indicative guide)**

- In the last two years worked a minimum of 1000 hours in a lead role in early (core) cardiac rehabilitation with evidence of relevant ongoing CPD
- BACPR member for the last two consecutive years
- One testimonial from a peer within cardiac rehabilitation and one testimonial from a cardiac rehabilitation patient

**Core Knowledge and Skills**

- Monitoring exercise intensity using recognised, evidence-based methods (including heart rate and perceived exertion)
- Use and interpretation of functional exercise assessments - implementation of functional capacity tests used in population groups such as cardiac and respiratory patients (e.g. Incremental Shuttle Walk Test, 6-Minute Walk Test, Chester Step Test, Cycle Ergometry and/or experience in performing ETTs and CPEX for assessment and prescription)
- Ability to apply exercise assessment results to exercise prescription and physical activity guidance.
- Management of high-risk patient groups/groups with multiple co-morbidities including clinical reasoning for the inclusion of the higher risk and complex cardiac patients, such as heart failure, arrhythmias, ICD's, unstable blood pressure and diabetes. In addition, understand the safety implications of high intensity sports and activities, resistance training, water-based activity and difficult clinical scenarios.
- Exercise prescription and management of patients with heart failure, understanding the relationship between risk assessment, baseline functional assessment and subsequent exercise prescription. Understand the physiological mechanisms relating to heart failure, enabling appropriate adaptations in respect of co-morbidity and cardio-assistive devices, using an evidence-based approach.
- Prescription and programming of resistance training within cardiac rehabilitation

The knowledge base demonstrated is equivalent to the content of the following BACPR/ACPICR physical activity and exercise modules: Physical Activity and Exercise in CVD Part 2, Physical Activity & Exercise in Heart Failure, Monitoring Exercise Intensity, Assessing Functional Capacity, Adapting Group Exercise and Principles and Applications of Resistance Training. Details of these courses can be found at https://www.bacpr.com/pages/default.asp. It is recognized however that comparable knowledge may have been acquired via other routes.

**Knowledge Transfer Skills and Experience**

Demonstrate at least two examples of knowledge transfer as an exercise expert in cardiovascular disease prevention and rehabilitation (e.g. teaching, lecturing, tutoring to students or peers, including BACPR courses, patients groups, conference oral or poster presentations, writing of educational material for peers and/or patients)

**Assessment**

- Multiple choice knowledge exam
- Written and oral case-study presentation of a moderate to high risk patient demonstrating evidence of advanced applications, skills and clinical reasoning.

**References:**

BACPR Standards and Core Components for Cardiovascular Disease Prevention and Rehabilitation (2017)

ACPICR Standards for Physical Activity and Exercise in the Cardiac Population,(2015) London:  Chartered Society of Physiotherapy

BACPR EPG Physical Activity and Exercise Competences in Cardiovascular Prevention and Rehabilitation (2012)

Requirements for resuscitation and training requirements for cardiac rehabilitation programmes ( 2018) : A joint statement by the Resuscitation Council (UK) and BACPR https://www.bacpr.com/resources/2D1_2018_01_16_RCCVUK_BACPR_Statement_FINAL.pdf