

A professional development framework for pulmonary rehabilitation

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Acknowledgements

We are very grateful to the contributions of all members of our Task and Finish Group:

Samantha Kon (Chair of this group) - Consultant Respiratory Physician, The Hillingdon Hospitals NHS Foundation Trust

Maria Buxton – Consultant Respiratory Physiotherapist, Central London Community Healthcare NHS Trust and National Clinical Lead RCP Pulmonary Accreditation Scheme.

Gemma Miller – Lecturer in Cardiovascular Exercise Physiology, Sport and Exercise Sciences, Liverpool John Moores University, Chair of the Advocacy group for Clinical Exercise Physiology UK

Emma Chaplin – Senior Pulmonary Rehabilitation Physiotherapist, University Hospitals Leicester NHS Trust (Clinical PR and COVID Rehabilitation Lead at Leicester, also on BTS Council and involved with NHSE)

Louise Sewell – Assistant Professor in Occupational Therapy, Coventry University.

Nicola Roberts – Professor in Respiratory Healthcare Delivery, Napier University Edinburgh and Co-chair BTS PR Specialist Advisory Group

Declarations of interest

Declarations of interest were completed in line with BTS Policy and are available upon request from BTS Head Office.

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List of abbreviations

AHCS - Academy of Healthcare Science

BTS - British Thoracic Society

GIRFT – Getting it right first time

MRC - Medical Research Council

PR - Pulmonary Rehabilitation

NRAP - National Respiratory Audit Programme

WSDC – Workforce and Service Development Committee

A professional development framework for pulmonary rehabilitation

Introduction

There is a strong evidence-base demonstrating the benefits of pulmonary rehabilitation. This has been recognised in the NHS Long Term Plan to expand pulmonary rehabilitation services and increase access to the benefits of pulmonary rehabilitation for a wider group of patients¹. In addition, the Royal College of Physicians National Respiratory Audit Programme (NRAP) organisation audit in 2024 recommended that PR services should be supported to ensure that all patients with chronic respiratory disease have timely access to a quality assured pulmonary rehabilitation by 2026². However, a shortfall in pulmonary rehabilitation capacity already exists, with long waiting times for programmes despite only a third of eligible patients being referred.

The recent British Thoracic Society (BTS) document "A respiratory workforce for the future" estimated that to deliver the NHS Long Term Plan ambition, at least 1000 pulmonary rehabilitation physiotherapy posts were needed - made up of 600 registered physiotherapy posts and 400 non-registered posts³. This is in addition to existing workforce vacancies, with the Respiratory GIRFT report in 2000 highlighting the existence of 1879 physiotherapy vacancies in England alone⁴. This lack of an available skilled workforce is hindering the expansion of pulmonary rehabilitation services. NHS England also acknowledged this in its recent "Guidance for growing and developing the pulmonary rehabilitation multidisciplinary team"⁵.

Pulmonary rehabilitation services are made up of a multidisciplinary workforce. This includes both registered and non-registered clinical staff whose skills have a vital role in the delivery of pulmonary rehabilitation. Currently there is no recognised career framework for pulmonary rehabilitation to support the professional development of staff, and the recruitment and retention of aspiring practitioners.

The aim of this document is to create a career framework to highlight the specific skill set that is required by staff working in pulmonary rehabilitation to enable the delivery of high-quality services. By demonstrating the continuum of development within specialist roles and a potential career pathway for staff in pulmonary rehabilitation, it can support the growth of a skilled and sustainable pulmonary rehabilitation workforce across the four nations. It is also important to ensure that quality assured pulmonary rehabilitation is delivered by an appropriately skilled and competent workforce⁶.

The career framework aligns to Agenda for Change pay bands to ensure that the expertise and experience of pulmonary rehabilitation practitioners is recognised, acknowledged and reflected in job descriptions and banding of positions. Guidance on suitable qualifications/registration and examples of professionals that may be considered for roles has been provided and are for guidance only. Organisations may have their own guidance on necessary qualifications and experience for roles.

The framework reflects the four pillars of practice for all health professionals:

- Clinical expertise
- Leadership
- Research
- Education and training

We envisage that the career framework will be used by staff in pulmonary rehabilitation to understand the knowledge and skills required for their role, and their role within the wider team. It will help identify any gaps in core skills, so that appropriate learning and development can be accessed, and high-quality pulmonary rehabilitation delivered.

Organisations may use the framework to help inform recruitment processes and service planning. We hope that the framework also provides a structure by which organisations may further support staff to develop in their careers, enabling the growth, recruitment and retention of a skilled and experienced pulmonary rehabilitation workforce.

Method of production

In May 2020 the British Thoracic Society (BTS) published a professional development framework for adult respiratory nurses⁷. A document for nurses working in paediatric respiratory medicine was added in May 2021⁸. This document builds on this suite of resources.

The BTS Workforce and Service Development Committee (WSDC) approved the development of this document, and a Task and Finish Group was established, which met for the first time in January 2024.

How to use this document

This document provides a potential career pathway for Pulmonary Rehabilitation Practitioners and establishes the core levels of knowledge and skills expected in practice. We appreciate that some posts will be aligned to Agenda for Change, while others will be non-NHS funded posts. In addition, in some services, such as integrated care, delivery of pulmonary rehabilitation may be a component of a wider role and, therefore the Agenda for Change band will reflect the skills required of that specific role rather than those of a pulmonary rehabilitation skillset alone.

We have used the term practitioner within the framework to remove any reference or inference to professional background. Broadly the titles associated with each Agenda for Change band are:

- Band 3 and 4 Pulmonary Rehabilitation Assistant Practitioner
- Band 5 Pulmonary Rehabilitation Practitioner
- Band 6 Specialist Pulmonary Rehabilitation Practitioner

- Band 7 Highly Specialised Pulmonary Rehabilitation Practitioner
- Band 7/8 Clinical/Operational Lead in Pulmonary Rehabilitation

We accept that people may have professional qualifications that they maintain and may choose to use this within their title e.g. Specialist pulmonary rehabilitation clinical exercise physiologist, Specialist pulmonary rehabilitation physiotherapist.

It is important to note that while this document can aid personal development, an individual's competencies, and reassessment of these competencies, should be reviewed as part of a standard annual appraisal process.

The professional development framework can be used:

- To identify the knowledge and skills required for individuals applying for/ or in post
- To articulate the skillset and qualifications required for recruitment
- To support the training and development of those pursuing a career in PR
- To support revalidation in registered health care professionals
- To inform service planning (safe and effective staffing levels) and expansion of services

Supporting evidence

Evidence to support career progression may vary but could include the following and should be reviewed during the annual appraisal:

- Evidence of ongoing portfolio of competence, reflective diary, peer accreditation/review
- Directly observed practice
- Performance review including 360-degree feedback
- Evidence of ongoing continued professional development by reflections and certificates
- Audit / Quality Improvement /research completed
- Record of publication, posters, presentations
- Production of protocols, business plans, policies, practise innovation and needs analysis
- Participation in committees and steering groups
- Teaching including:
 - Teaching programmes
 - Mentorship programmes
 - Involvement with Higher Education Institutions
 - Organising meetings
 - Study days
 - Conferences

Review

As this is a new document, it will be reviewed by members of the BTS WSDC, two years after publication.

References

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- 3. A respiratory workforce for the future. British Thoracic Society Reports, Vol 13, Issue 2, 2022.
- 4. NHSE. Respiratory Medicine: GIRFT Programme National Specialty Report. 2021.
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- 6. Royal College of Physicians Pulmonary Rehabilitation Services Accreditation Scheme. https://www.prsas.org/standards
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- 8. A professional development framework for paediatric respiratory nursing. British Thoracic Society Reports Vol 12, Issue 2, May 2021

	Core Clinical Skills	Knowledge/	Leadership and	Research	Qualifications
		Training & Experience	management		
Pulmonary Rehabilitation Assistant Practitioner (Band 3)	 Demonstrates: good communication skills clear, effective, timely and accurate recording keeping clear instruction and demonstration of equipment to support the delivery of safe exercise Assists with: the accurate recording of vital signs, MRC and BORG scores conducting objective assessments, including exercise and muscle strength testing under guidance/supervision the delivery of warm up and cool down exercises the delivery of PR classes under supervision supporting service users to complete validated health status tools including calculating and recording scores Ensures: all necessary equipment is available, set up correctly and maintained (including where appropriate, resuscitation equipment and oxygen cylinders) delegated administrative duties required by the service are completed 	Is aware of and understands: the anatomy and physiology of the respiratory system common respiratory diseases and their risk factors Is aware of: the referral criteria for PR, including inclusion and exclusion criteria and its components the physiological response to exercise (normal and abnormal), including contraindications to exercise how to refer to others appropriately ensuring patient safety and quality of care is maintained Understands: what PR is and is able to explain what it is to service users the beneficial effects of supervised exercise in respiratory disease, including after recent exacerbation the potential risks in the environment in which PR will take place. Takes steps to minimise these and escalate where needed Demonstrates: evidence of Basic Life Support training and certification.	Demonstrates: an understanding of their own role within the wider multi-disciplinary team and works collaboratively With assistance is: able to manage a delegated workload, time and resources able to regularly review practice to improve personal performance	Is aware of the value of research, audit and quality improvement.	Level 3 Qualification in Exercise Referral or equivalent (Long term conditions) NVQ3 or equivalent National Care Certificate
Pulmonary Rehabilitation Assistant Practitioner (Band 4)	Demonstrates able to: adapt their communication approach to explain PR and the assessment process to an individual accurately recording vital signs, MRC and BORG scores, including recognising abnormal values and escalating the result where necessary	Is aware of and understands: the common respiratory diseases, their risk factors and management, including the importance of PR in management of their disease standardised guidelines for performing objective measurements	the ability to complete routine elements of delegated tasks within established protocols they can work independently	Understands the value of research, audit and quality improvement. With assistance can apply	Level 4 Exercise Qualification in Pulmonary Rehabilitation

Core Clinical Skills	Knowledge/	Leadership and	Research	Qualifications
	Training & Experience	management		
support service users to complete validated health status tools including calculating and recording scores, and is aware of their indications for use in PR use validated screening tools to screer psychological and nutritional status an assess smoking status. Is aware of the criteria for onward referral to appropr services. Conducts: objective assessments, including exerciand muscle strength testing with limited/indirect supervision warm up and cool down exercises and adapts them where necessary for individuals Ensures: all necessary equipment is available, secorrectly and maintained (including whappropriate, resuscitation equipment a oxygen cylinders) Assists with: the delivery of PR classes under supervision, including motivating and encouraging services users the review and adaptation of exercise prescription, progressing or regressing prescription informed by objective physiological measures and in line with departmental protocols in supporting exercising patients with education on pacing and breathlessness management strategies	for the physiological response to exercise (normal and abnormal), including contraindications to exercise • the referral criteria for PR, including inclusion and exclusion criteria, and its components • applies local protocols for obtaining assistance when faced with an unwell patient Demonstrates: • evidence of Basic Life Support training and certification.	within their scope of practice where they have demonstrated competence and take responsibility With assistance is: • able to regularly review practice to improve personal performance	evidence to inform practice.	

	Core Clinical Skills	Knowledge/	Leadership and	Research	Qualifications
		Training & Experience	management		
Pulmonary Rehabilitation Practitioner (Band 5)	 Demonstrates able to: adapt communication approach to explain PR and the assessment process to an individual, including supporting the identification of goals and exploring barriers conduct routine subjective assessment to ascertain any relevant medical history, current medications and assess implications for exercise ascertain opportunities to optimise treatment and make any necessary onward referrals record vital signs, MRC and BORG scores, including recognising abnormal values and acting on the result conduct an objective assessment including assessment of health status, educational needs, muscle strength and exercise capacity using validated measures at the beginning and on completion of explain PR within their scope of practice develop and prescribe an individualised exercise training (aerobic and resistance) programme appropriate to an individual's needs and goals, with supervision review and adapt exercise prescription, progressing or regressing the prescription informed by objective physiological measures and in line with departmental protocols deliver support and education on exercise to patients in line with national recommendations, including unsupervised home programmes, and signposting to useful resources Assists in: 	Is aware of and understands: • published guidelines and standardised protocols in PR • the Minimal Clinical Important Difference (MCID) scores for objective measures used in an assessment • how to identify problems and modify plans in routine cases but with support of senior staff in more complex cases • the role of oxygen therapy during exercise and titration of oxygen flow Understands: • the purpose of the PR assessment including identification of the individual's needs, assessment of safety, to obtain baseline outcome measures and the development of an individualised exercise plan Demonstrates: • knowledge of the anatomy and physiology of the respiratory system, chronic respiratory diseases and applies this to their management • knowledge of the basis of exercise training and physiological mechanisms of exercise intolerance in patients with chronic respiratory disease • evidence of Basic Life Support or Immediate Life Support training (where indicated) and certification.	Demonstrates: they are able to manage a workload, time and resources they can regularly review practice to improve personal performance and articulate own development needs With assistance is: able to take responsibility for own work and others they are supervising	Can assist with research, clinical audit and quality improvement. Can assist with applying and communicatin g evidence to inform practice with guidance.	Registered healthcare professional (NMC, HCPC) Undergraduate degree in Sport and Exercise Science (BSc) or relevant related and working towards professional registration

	Core Clinical Skills	Knowledge/	Leadership and	Research	Qualifications
		Training & Experience	management		
	 the planning, preparing and evaluation of educational sessions and materials according to local need the rapid assessment of an unwell individual and provides appropriate management within own scope of practice and/or summoning assistance in an emergency 				
Specialist Pulmonary Rehabilitation Practitioner (Band 6)	 Demonstrates the ability to: assess readiness, confidence, and motivation to participate in PR. Provides support and respond to concerns. conduct a subjective assessment, including in complex patients, to ascertain any relevant medical history, current medications and implications for exercise ascertain opportunities to optimise treatment and make any necessary onward referrals develop and prescribe an individualised exercise training (aerobic and resistance) programme appropriate to an individual's needs and goals and ensures adaptations for risk and comorbidities are considered review and adapt exercise prescription, progressing or regressing the prescription informed by objective physiological measures and changing circumstances, in line with departmental protocols delivers support and education on exercise to patients in line with national recommendations, including unsupervised home programmes, and signposting to useful resources	 Demonstrates knowledge of: the diagnostic tests used in the assessment of respiratory disease disease management (non-pharmacological and pharmacological) national and local PR standards, policies, and guidelines and applies them to practice risks of community vs hospital settings using behavioural change strategies and motivational interviewing techniques Understands the: Minimal Clinical Important Difference (MCID) scores for objective measures used in an assessment and is able to interpret these in the context of the individual patient the principles of individually tailored exercise prescription including exercise frequency, duration, intensity, modality (aerobic and resistance) and applies them to practice role of oxygen therapy during exercise and titration of oxygen flow Demonstrates: evidence of Basic Life Support or Immediate Life Support training (where indicated) and certification 	that they can work independently within scope of practice and take responsibility for others With assistance: develops leadership skills or initiatives to bring about change in response to needs of the service and its users	Demonstrates participation in research, audit and quality improvement. Demonstrates ability to apply and communicate evidence to inform practice with guidance.	Registered healthcare professional (NMC, HCPC) Registered Exercise practitioner (e.g. Academy of Healthcare Science (AHCS) Clinical Exercise Physiologist)

	Core Clinical Skills	Knowledge/ Training & Experience	Leadership and management	Research	Qualifications
	 provides informal support and counselling to patients with regard to their health conduct a rapid assessment of an unwell individual and provides appropriate management within own scope of practice and/or summoning assistance in an emergency Leads on: conducting an objective assessment including assessment of health status, educational needs, muscle strength and exercise capacity using validated measures at the beginning and on completion of PR. Is able to adapt the assessment in complex patients with multiple comorbidities delivering PR classes, including managing and utilising other members of the team to ensure safe and effective class management Assists in: planning, preparing and evaluation of educational sessions and materials 	Training & Experience	management		
	according to local need (health literacy, cultural adaptation, other specific learning needs)				
Highly Specialised Pulmonary Rehabilitation Practitioner	Demonstrates ability to: use advanced communication skills with services users, the wider team and external stakeholders review referral documentation prior to assessment and assesses eligibility for PR ascertain opportunities to optimise	Demonstrates specialist knowledge of and applies: diagnostic tests used in the assessment of respiratory disease disease management (non-pharmacological and pharmacological) including common comorbidities and their impact on their ability to exercise	Demonstrates able to: • work autonomously, support more junior staff with decision making and take responsibility for others	Demonstrates participation in research, audit and quality improvement.	Registered healthcare professional (NMC, HCPC) Registered Exercise
(Band 7)	treatment, make onward referrals, and refers any medical issues identified at	the principles of individually tailored exercise prescription including exercise frequency,	Deliver training, mentorship, timely	Assists in presenting work at	practitioner (e.g. Academy of Healthcare

Core Clinical Skills	Knowledge/	Leadership and	Research	Qualifications
	Training & Experience	management		
assessment for review prior to commencing a PR programme Leads on: • conducting a subjective assessment, including in complex patients with multiple comorbidities and needs, to ascertain any relevant medical history, current medications and implications for exercise. • conducting an objective assessment including assessment of health status, educational needs, muscle strength and exercise capacity using validated measures at the beginning and on completion of explain PR, adapting the assessment in complex patients with multiple comorbidities and needs • the prescription of an individualised exercise training (aerobic and resistance) programme appropriate to an individual's needs and goals, and ensures adaptations for risk, complex needs and comorbidities are considered • the delivery of PR classes, including managing and utilising other members of the team to ensure safe and effective class management • the review and adaptation of exercise prescription, progressing or regressing the prescription informed by objective physiological measures and changing circumstances, in line with departmental protocols • the planning, preparation and evaluation of educational sessions and materials according to local need (considering appropriate teaching design, health	duration, intensity, modality (aerobic and resistance) an understanding of emerging models of PR and their evidence base national and local pulmonary rehabilitation standards, policies, and guidelines and applies them to practice using behavioural change strategies and motivational interviewing techniques Understands: Minimal Clinical Important Difference (MCID) scores for objective measures used in an assessment and can interpret these in the context of the individual patient and service. the role of oxygen therapy during exercise and titration of oxygen flow Demonstrates: evidence of Basic Life Support or Immediate Life Support training (where indicated) and certification ability to discuss advanced care planning and palliative care	recording of competencies and appraisals of staff team Assists in: representing the service externally at local, regional, and national meetings the development and implementation of operational protocols for service delivery and service assessment	conferences and contributing to publications in peer reviewed journals.	Science (AHCS) Clinical Exercise Physiologist)

	Core Clinical Skills	Knowledge/	Leadership and	Research	Qualifications
		Training & Experience	management		
	literacy, cultural adaptation, other specific learning needs) the delivery of support and education on exercise to patients in line with national recommendations, including unsupervised home programmes, and signposting to useful resources on the rapid assessment of an unwell individual and provides appropriate management within own scope of practice and/or summoning assistance in an emergency				
Clinical/Operati onal Lead Banding may depend on service size and structure	 Leads on: organising the PR service risk assessments and be accountable for health and safety ensuring annual local audit undertaken reviewing outcomes of national audit programmes and making recommendations for service improvements based on their conclusions Demonstrate and leads on: good communication with services users, the wider team and external stakeholders. ensuring adequate staffing levels and skill mix to deliver a safe and effective PR service (justify staff/patient ratios based on supervision requirements and risk stratification) Demonstrates: adequate processes are in place to accurately collect and record service data for benchmarking, provision of local key performance indicators and comprehensive service evaluation 	 Demonstrates: specialist knowledge and expertise in PR and service delivery ability to lead on the provision of advice to others confidence in working in a rapidly changing environment, and lead on dealing with planned and unplanned events Leads on: developing relationships with stakeholders and deliver specialist education to improve both the quantity and quality of referrals to PR emerging models of PR and evidence base 	Leads on:	Leads on applying and communicatin g evidence to inform practice. Leads on presenting work at conferences and contribute to publications in peer reviewed journals.	Registered healthcare professional (NMC, HCPC) Registered Exercise practitioner (e.g. Academy of Healthcare Science (AHCS) Clinical Exercise Physiologist)

Core Clinical Skills	Knowledge/	Leadership and	Research	Qualifications
	Training & Experience	management		
leadership in improving standards of patient care. Ensure consultation with service users when planning and developing the service. Ensure learning from incidents		National audit lead for the service.		