British Thoracic Society

Quality Standards

for Pulmonary Rehabilitation in Adults

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BTS Quality Standards for Pulmonary Rehabilitation in Adults are endorsed by:

The Association for Chartered Physiotherapists in Respiratory Care (ACPRC)

The Association of Respiratory Nurse Specialists (ARNS)

The College of Occupational Therapists

The Primary Care Respiratory Society UK (PCRS-UK)

ACPRC is pleased to endorse the BTS Quality Standards for Pulmonary Rehabilitation. They represent a valuable tool for clinicians and commissioners, against which services can be benchmarked and their widespread adoption will lead to an improvement in the services available to respiratory patients.

The College of Occupational Therapists is pleased to endorse these Quality Standards for Pulmonary Rehabilitation. They will provide people with chronic respiratory disease, their family and carers, with an understanding of the standard of care they can expect from their health and social care provider, and act as a quality benchmark to all healthcare professionals working across the UK in pulmonary rehabilitation services.

BTS Quality Standards for Pulmonary Rehabilitation in Adults should be read alongside the BTS Guideline for Pulmonary Rehabilitation in Adults 2013 (www.brit-thoracic.org.uk).

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British Thoracic Society

Quality Standards for Pulmonary Rehabilitation in Adults

The British Thoracic Society (BTS) has been at the forefront of the production of guidelines for best clinical practice in respiratory medicine since the Society was established over 25 years ago. Guideline production methodology has evolved considerably in recent years and a manual setting out the detailed policy for the production of BTS guidelines was approved in July 2010 and is updated annually (1). BTS guidelines received NICE Accreditation in 2011.

A statement on quality standards based on each BTS guideline is a key part of the range of supporting materials that the Society produces to assist in the dissemination and implementation of a guideline's recommendations.

A quality standard is a set of specific, concise statements that:

- Act as markers of high-quality, cost-effective patient care across a pathway or clinical area, covering treatment or prevention.
- Are derived from the best available evidence.

NICE quality standards were used as a model for the development of the BTS quality standards and the NICE Quality Standards Process Guide was used to assist (2).

This document contains the BTS Quality Standards for Pulmonary Rehabilitation in adults with chronic respiratory disease and applies to both primary and secondary care.

The BTS Guideline on Pulmonary Rehabilitation in Adults was published in 2013 (https://www.brit-thoracic.org.uk/guidelines-and-quality-standards/pulmonary-rehabilitation-guideline/) (3). The rationale for these quality standards is drawn from evidence and recommendations summarised in these guidelines.

The purpose of the quality standards document is to provide commissioners, healthcare professionals, planners and patients with a guide to standards of care which should be met for pulmonary rehabilitation programmes in the UK, together with measurable markers of good practice.

BTS quality standards are intended for:

- Healthcare professionals to allow decisions to be made about care based on the latest evidence and best practice.
- People with chronic respiratory disease and their families and carers, to enable understanding of what services they should expect from their health and social care provider.
- Service providers to be able to quickly and easily examine the clinical performance of their organisation and assess the standards of care they provide.
- Commissioners so that they can be confident that the services they are purchasing are high quality and cost effective.

Method of Working

A Quality Standards Working Group was convened in March 2013, with the following membership:

Dr Charlotte Bolton	Co-Chair Nottingham Respiratory Research Unit, University of Nottingham
Professor Michael Steiner	Co-Chair University Hospitals of Leicester, Glenfield Hospital
Dr Elaine Bevan Smith	Respiratory Nurse Worcestershire Acute Hospitals NHS Trust
Dr John Blakey	Respiratory Medicine Liverpool School of Tropical Medicine
Mr Patrick Crowe	Patient representative Mansfield
Dr Sarah Elkin	Respiratory Medicine Imperial College NHS Trust - St Mary's Hospital, London
Ms Sian Goddard	Physiotherapy, ACPRC, Standards of Care Committee Royal Cornwall Hospitals Trust, Truro, Cornwall
Dr Neil Greening	Respiratory Medicine University Hospitals of Leicester, Glenfield Hospital
Ms Karen Heslop	Respiratory Nurse Royal Victoria Infirmary, Newcastle
Dr Jim Hull	Respiratory Medicine Royal Brompton & Harefield NHS Trust
Dr Rupert Jones	GP, PCRS-UK Plymouth University Peninsula Schools of Medicine and Dentistry Armada Surgery, Plymouth
Dr Will Man	Respiratory Medicine Royal Brompton & Harefield NHS Trust
Professor Mike Morgan	Respiratory Medicine, Royal College of Physicians University Hospitals of Leicester, Glenfield Hospital
Professor Mike Roberts	Respiratory Medicine Whipps Cross Hospital, London
Dr Louise Sewell	Occupational Therapy, College of Occupational Therapists University Hospitals of Leicester, Glenfield Hospital
Professor Sally Singh	Physiotherapy University Hospitals of Leicester, Glenfield Hospital
Dr Paul Walker	Respiratory Medicine University Hospital Aintree, Liverpool
Ms Sandy Walmsley	Respiratory Nurse, PCRS-UK Heart of England Foundation Trust

Members of the Quality Standards Group submitted Declaration of Interest forms in line with the BTS Policy and copies of forms are available online via the BTS website or on request from BTS Head Office.

The draft document was considered in detail by the BTS Standards of Care Committee, the BTS Professional and Organisational Standards Committee, and the BTS Public Liaison Committee in October / November 2013.

The document was made available on the BTS website for public/stakeholder consultation for the period from 9 January – 4 February 2014.

Following further revision the document was submitted for approval to the BTS Standards of Care Committee in March 2014.

The Quality Standards for Pulmonary Rehabilitation in Adults will be reviewed in 2017 or following the publication of a revised guideline whichever is the sooner.

Each quality standard includes the following:

- A **quality statement** which describes a key marker of high-quality, cost-effective care for this condition.
- **Quality measures**, which aim to improve the structure, process and outcomes of health care.
- **Mapping to the NHS outcomes framework.** For each standard, the NHS outcomes framework domain to which it pertains is indicated. The domains are given in Appendix 1.

The quality measures are not intended to be new sets of targets or mandatory indicators for performance management that need to be collected. The quality measures are specified in the form of a numerator and a denominator, which define a proportion or ratio (numerator/denominator). It is assumed that the numerator is a subset of the denominator population. The suggested numerator and denominator are provided to allow healthcare professionals and service providers to examine their clinical performance in relation to each quality standard. It is recognised that no national quality indicators will be available for this condition, and institutions will need to agree locally what information is required for the denominator to be used in each case, and what the expected level of achievement should be, given local circumstances. A brief description about the quality standard in relation to each audience is given.

The main source references for these quality standards are:

BTS Guideline on Pulmonary Rehabilitation in Adults, 2013 (3)

NHS Service specification: Pulmonary Rehabilitation Service (4)

IMPRESS Guide to Pulmonary Rehabilitation 2011 (5)

NICE COPD guideline 2012 (6)

There is no specific order of priority associated with the list of quality standards.

Summary of Quality Statements

No.	Quality Statement
1	Referral for pulmonary rehabilitation: a. People with COPD and self reported exercise limitation (MRC dyspnoea 3-5) are offered pulmonary rehabilitation. b. If accepted, people referred for pulmonary rehabilitation are enrolled to commence within 3 months of receipt of referral.
2	Pulmonary rehabilitation programmes accept and enrol patients with functional limitation due to other chronic respiratory diseases (for example bronchiectasis, ILD and asthma) or COPD MRC dyspnoea 2 if referred.
3	Referral for pulmonary rehabilitation after hospitalisation for acute exacerbations of COPD: a. People admitted to hospital with acute exacerbations of COPD (AECOPD) are referred for pulmonary rehabilitation at discharge. b. People referred for pulmonary rehabilitation following admission with AECOPD are enrolled within one month of leaving hospital.
4	Pulmonary rehabilitation programmes are of at least 6 weeks duration and include a minimum of twice-weekly supervised sessions.
5	Pulmonary rehabilitation programmes include supervised, individually tailored and prescribed, progressive exercise training including both aerobic and resistance training.
6	Pulmonary rehabilitation programmes include a defined, structured education programme.
7	People completing pulmonary rehabilitation are provided with an individualised structured, written plan for ongoing exercise maintenance.
8	People attending pulmonary rehabilitation have the outcome of treatment assessed using as a minimum, measures of exercise capacity, dyspnoea and health status.
9	Pulmonary rehabilitation programmes conduct an annual audit of individual outcomes and process.
10	Pulmonary rehabilitation programmes produce an agreed standard operating procedure.

Quality Statement

Quality statement 1	**Referral for pulmonary rehabilitation:** **a. People with COPD and self reported exercise limitation (MRC dyspnoea 3-5) are offered pulmonary rehabilitation.** **b. If accepted, people referred for pulmonary rehabilitation are enrolled to commence within 3 months of receipt of referral.**
Rationale	• Pulmonary rehabilitation has been proven to increase exercise capacity and health status in people with COPD who have significant self reported exercise limitation (assessed by MRC dyspnoea scale; see appendix 3). • Previous attendance at pulmonary rehabilitation should not be a barrier to referral as the benefits may diminish with time and can be restored by further participation in pulmonary rehabilitation. • Enrolment is defined as the point at which people commence the pulmonary rehabilitation programme. Assessment for pulmonary rehabilitation does not constitute enrolment. • There are certain contra-indications to pulmonary rehabilitation listed in the guidelines (3). Thus, not all patients referred to Pulmonary Rehabilitation will be suitable for enrolment. Eligibility for Pulmonary Rehabilitation is considered in detail in the BTS Guideline (3). • Not all patients who are referred and assessed for pulmonary rehabilitation will agree to be enrolled in the programme.
Quality measure	**Structure:** • Evidence of local pulmonary rehabilitation referral pathways for both primary and secondary care providers. • Evidence that written information about availability and content of local pulmonary rehabilitation programmes is disseminated to primary and secondary care providers. • Provision of clear eligibility criteria to primary and secondary care providers. • Evidence that patient reported exercise limitation (MRC dyspnoea scale) is recorded annually. • Evidence that pulmonary rehabilitation programmes accept referral of patients who have previously undertaken pulmonary rehabilitation. **Process:** • Proportion of eligible patients offered pulmonary rehabilitation. • Proportion of accepted patients enrolled within 3 months of receipt of referral. **Numerator 1** • Number of eligible patients offered pulmonary rehabilitation. **Denominator 1** • Number of eligible patients. **Numerator 2** • Number of accepted patients commencing within 3 months of receipt of referral. **Denominator 2** • Number of patients referred for pulmonary rehabilitation who are accepted for treatment. **Numerator 3** • Number of pulmonary rehabilitation programmes that accept referrals of patients who have previously attended pulmonary rehabilitation. **Denominator 3** • Number of pulmonary rehabilitation programmes.

Description of what the quality statement means for each audience	**Service Provider:** • Ensure systems are in place to make clinical staff aware of availability of pulmonary rehabilitation and facilitate referral. • Ensure providers record MRC dyspnoea scale annually and have the facility to re-refer eligible patients. **Healthcare Professional:** • Ensure pulmonary rehabilitation is offered to all eligible patients and record whether referral is accepted and appointment made. **Commissioners:** • Ensure pulmonary rehabilitation services are adequately resourced to meet volume of referrals. • Ensure that pulmonary rehabilitation services can enrol patients within 3 months of receipt of referral. **People with COPD:** • Are offered pulmonary rehabilitation if clinically indicated and are provided with information about services in their area.
Source guidance	BTS Guideline on Pulmonary Rehabilitation in Adults, 2013 (3) NHS Service specification: Pulmonary Rehabilitation Service (4) NICE COPD guideline 2012 (6) National COPD Audit Programme 2013-2016 (7)
Mapping	Domain 2: Enhancing quality of life for people with long-term conditions

Quality Statement

Quality statement 2	**Pulmonary rehabilitation programmes accept and enrol patients with functional limitation due to other chronic respiratory diseases (for example bronchiectasis, ILD and asthma) or COPD MRC dyspnoea 2 if referred.**
Rationale	• Pulmonary rehabilitation can improve exercise capacity in people with a variety of respiratory conditions other than COPD that affect activities of daily living such as bronchiectasis, interstitial lung disease (ILD) and asthma. • Pulmonary rehabilitation may benefit some people with less significant self reported exercise limitation (MRC dyspnoea scale 2; see appendix 3). • This statement will guide service providers, healthcare professionals, commissioners and people with chronic respiratory disease to ensure that pulmonary rehabilitation services are set up to be equitable and inclusive of patients with a variety of respiratory conditions.
Quality measure	**Structure:** • Evidence that pulmonary rehabilitation is available locally and offered to people who are functionally limited by chronic respiratory diseases other than COPD (and people with COPD MRC dyspnoea 2) if referred by their primary or secondary healthcare teams. **Process:** • Proportion of pulmonary rehabilitation programmes that accept referrals for people with chronic respiratory diseases other than COPD (and people with COPD MRC dyspnoea 2). **Numerator** • Number of pulmonary rehabilitation programmes accepting referrals for patients with chronic respiratory diseases other than COPD (and people with COPD MRC dyspnoea 2). **Denominator** • Number of pulmonary rehabilitation programmes nationally.
Description of what the quality statement means for each audience	**Service Provider:** • Ensure systems are in place to make clinical staff aware of the potential benefit of pulmonary rehabilitation in people with respiratory diseases other than COPD (e.g. bronchiectasis, ILD and asthma) and in those with COPD and MRC dyspnoea 2. • Ensure disease education programmes are balanced and suitable for a range of respiratory conditions. **Healthcare Professional:** • Ensure pulmonary rehabilitation referral is considered in the management of people who are functionally limited by all chronic respiratory diseases. **Commissioners:** • Ensure pulmonary rehabilitation services are adequately resourced to meet the volume of referrals for people with respiratory conditions other than COPD and people with COPD and MRC dyspnoea 2. **People with chronic respiratory disease or people with COPD and MRC 2 dyspnoea:** • Are referred for pulmonary rehabilitation if clinically indicated (i.e. remain functionally limited despite optimisation of their underling condition) and are provided with information.

Source guidance	BTS Guideline on Pulmonary Rehabilitation in Adults, 2013 (3) NHS Service specification: Pulmonary Rehabilitation Service (4) NICE COPD guideline 2012 (6) National COPD Audit Programme 2013-2016 (7) BTS Guideline for non-CF Bronchiectasis 2010 (8) BTS Quality Standard for clinically significant Bronchiectasis 2012 (9) NICE Idiopathic pulmonary fibrosis guideline 2013 (10) NHS England - Clinical Reference Group A14 Specialist Respiratory 2013 (11)
Mapping	Domain 2: Enhancing quality of life for people with long-term conditions

Quality Statement

Quality statement 3	**Referral for pulmonary rehabilitation after hospitalisation for acute exacerbations of COPD:** **a. People admitted to hospital with acute exacerbations of COPD (AECOPD) are referred for pulmonary rehabilitation at discharge.** **b. People referred for pulmonary rehabilitation following admission with AECOPD are enrolled within one month of leaving hospital.**
Rationale	• Acute exacerbations of COPD (AECOPD) are associated with worsening symptoms, impaired health-related quality of life, reduced exercise capacity and physical activity, and skeletal muscle dysfunction, particularly of the lower limbs. • A Cochrane review of nine studies showed that pulmonary rehabilitation started shortly after hospital admission (typically within 3 weeks of discharge) significantly improved exercise capacity and health-related quality of life compared with usual care. • The BTS Guideline on Pulmonary Rehabilitation in Adults recommends that "patients hospitalised for acute exacerbation of COPD should be offered pulmonary rehabilitation at hospital discharge to commence within one month of discharge".
Quality measure	**Structure:** • Evidence of local pathways for offering and referring people who have been hospitalised with AECOPD to outpatient pulmonary rehabilitation. • Evidence that pulmonary rehabilitation programmes can enrol people referred following hospitalisation for AECOPD within one month of leaving hospital. **Process:** • Proportion of eligible people discharged with AECOPD who are offered pulmonary rehabilitation. • Number of people who accept referral who are enrolled within one month of discharge from hospital. **Numerator 1** • Number of people admitted with AECOPD who are offered pulmonary rehabilitation on discharge. **Denominator 1** • Number of people with a primary discharge diagnosis of AECOPD. **Numerator 2** • Number of people admitted with AECOPD who accept a referral for pulmonary rehabilitation post-discharge who are enrolled within one month of leaving hospital. **Denominator 2** • Number of people who accept referral for pulmonary rehabilitation after discharge from hospital.

Description of what the quality statement means for each audience	**Service Provider:** • Ensure hospital systems are in place to identify people with a discharge diagnosis of AECOPD. • Ensure hospital systems are in place to offer pulmonary rehabilitation to these people if appropriate. • Ensure systems are in place to offer people, who accept referral, enrolment into pulmonary rehabilitation within one month of leaving hospital. **Healthcare Professional:** • Ensure people being discharged with a diagnosis of AECOPD are offered pulmonary rehabilitation. **Commissioners:** • Ensure pulmonary rehabilitation services are adequately resourced to allow timely (within one month) enrolment of people post hospital discharge. **People with COPD admitted to hospital with acute exacerbation:** • Are offered pulmonary rehabilitation on discharge and enrolled within one month.
Source guidance	BTS Guideline on Pulmonary Rehabilitation in Adults, 2013 (3) NHS Service specification: Pulmonary Rehabilitation Service (4) NICE COPD guideline 2012 (6) National COPD Audit Programme 2013-2016 (7)
Mapping	Domain 2: Enhancing quality of life for people with long-term conditions Domain 3: Helping people to recover from episodes of ill health or following injury

Quality Statement

Quality statement 4	**Pulmonary rehabilitation programmes are of at least 6 weeks duration and include a minimum of twice-weekly supervised sessions.**
Rationale	• The benefits of pulmonary rehabilitation have been established for programmes with duration of at least 6 weeks, which include a minimum of twice weekly supervised sessions. The assessment sessions at baseline and on completion should be in addition to this. • In line with published pulmonary rehabilitation studies and the outcomes they demonstrate, a third session per week of prescribed exercise is recommended. This can be performed unsupervised but should be prescribed. Other opportunities for physical activity should be encouraged.
Quality measure	**Structure:** • Evidence that pulmonary rehabilitation programmes are of at least 6 weeks duration and include at least twice weekly supervised sessions. This does not include assessment sessions, which require additional sessions. **Process:** • Evidence that pulmonary rehabilitation programmes comprise a minimum of 6 weeks intervention and a minimum of twice weekly supervised sessions. **Numerator** • Number of pulmonary rehabilitation programmes offering a programme of at least 6 weeks duration and at least twice weekly supervised sessions (excluding the additional assessments). **Denominator** • Number of pulmonary rehabilitation programmes nationally.
Description of what the quality statement means for each audience	**Service Provider:** • Ensure pulmonary rehabilitation is of 6 weeks minimum duration, offering a minimum of twice weekly supervised sessions. The assessment sessions are in addition. **Healthcare Professional:** • Provide a pulmonary rehabilitation programme of 6 weeks minimum duration, and a minimum of twice weekly supervised sessions. **Commissioners:** • Ensure pulmonary rehabilitation services are adequately resourced to allow a minimum of 6 weeks duration pulmonary rehabilitation and minimum of twice weekly supervised sessions. The assessment sessions are to be provided in addition to this rehabilitation programme. **People with chronic respiratory disease attending pulmonary rehabilitation:** • Are offered a programme of 6 weeks minimum duration and a minimum of twice weekly supervised sessions.
Source guidance	BTS Guideline on Pulmonary Rehabilitation in Adults, 2013 (3) NHS Service specification: Pulmonary Rehabilitation Service (4) IMPRESS Guide to Pulmonary Rehabilitation 2011 (5) NICE COPD guideline 2012 (6)
Mapping	Domain 2: Enhancing quality of life for people with long-term conditions Domain 4: Ensuring that people have a positive experience of care

Quality Statement

Quality statement 5	**Pulmonary rehabilitation programmes include supervised, individually tailored and prescribed, progressive exercise training including both aerobic and resistance training.**
Rationale	• There is a large body of evidence demonstrating that aerobic and resistance training result in clinically meaningful improvements in whole body endurance and strength respectively. • Exercise training should be individually prescribed and progressed from assessments of physical performance obtained at baseline. • Continuous or interval aerobic training has been shown to provide equivalent benefits to endurance performance.
Quality measure	**Structure:** • Evidence that all patients undertaking pulmonary rehabilitation receive an exercise programme which is individually prescribed and progressive. • Evidence that patients enrolled in pulmonary rehabilitation undertake both aerobic and resistance training. • Evidence that professionals providing pulmonary rehabilitation are adequately trained/ experienced in prescribing and supervising exercise training. **Process:** • Proportion of pulmonary rehabilitation programmes that provide assessment of physical performance and prescription of exercise intensity at enrolment. • Proportion of pulmonary rehabilitation programmes that ensure progression of exercise goals at intervals during programme according to individual progress and needs. • Proportion of pulmonary rehabilitation programmes that provide both aerobic and resistance training. • Proportion of patients attending pulmonary rehabilitation who receive an individually prescribed and progressive exercise programme. • Proportion of patients attending pulmonary rehabilitation who receive both aerobic and resistance training. • Proportion of patients attending pulmonary rehabilitation with an individualised aerobic and resistance training prescription in place. **Numerator 1** • Number of people receiving an individually prescribed and progressive aerobic exercise programme. **Denominator 1** • Number of people enrolled onto pulmonary rehabilitation. **Numerator 2** • Number of people receiving an individually prescribed and progressive resistance exercise programme. **Denominator 2** • Number of people enrolled onto pulmonary rehabilitation.

Description of what the quality statement means for each audience	**Service Provider:** • Ensure that the programme delivers supervised, individually prescribed and progressive exercise therapy in line with the BTS pulmonary rehabilitation guideline. **Healthcare Professional:** • Provide generic exercise sessions which are individually prescribed in order to achieve individualised goals for both aerobic and resistance training and that each patient's progress is reviewed and their prescription modified during the programme in order to be progressive. **Commissioners:** • Ensure the programme is equipped to deliver effective aerobic and resistance training in line with national guidelines and there is a written standard operating procedure (see Quality Statement 10). **People attending pulmonary rehabilitation:** • Receive an individualised, written, aerobic and resistance exercise programme when they attend pulmonary rehabilitation.
Source guidance	BTS Guideline on Pulmonary Rehabilitation in Adults, 2013 (3) NHS Service specification: Pulmonary Rehabilitation Service (4) NICE COPD guideline 2012 (6)
Mapping	Domain 2: Enhancing quality of life for people with long-term conditions Domain 4: Ensuring that people have a positive experience of care

Quality Statement

Quality statement 6	**Pulmonary rehabilitation programmes include a defined, structured education programme.**
Rationale	• A structured and comprehensive programme of education is an integral and essential component of pulmonary rehabilitation. • The education should be delivered by professionals competent in the relevant subject areas. • The BTS Pulmonary Rehabilitation Guideline provides a list of recommended topics - appendix H (3). • Inviting former pulmonary rehabilitation graduates or member of the local Breathe Easy group should be actively encouraged. • Supplementing talks with written education information is advised with consideration given to language, literacy and vision issues.
Quality measure	**Structure:** • Evidence of local pulmonary rehabilitation programme arrangements to ensure that all patients who are referred to pulmonary rehabilitation have access to a comprehensive programme of education in line with content set out in the BTS Pulmonary Rehabilitation Guideline. **Process:** • Proportion of pulmonary rehabilitation programmes that provide participants with a structured education programme. **Numerator** • Number of pulmonary rehabilitation programmes providing a structured education programme in line with the BTS Pulmonary Rehabilitation Guideline. **Denominator** • The number of pulmonary rehabilitation programmes nationally.
Description of what the quality statement means for each audience	**Service Provider:** • Ensure that pulmonary rehabilitation programmes have access to an interdisciplinary team who are trained and competent to deliver the educational advice outlined in the BTS Pulmonary Rehabilitation Guideline. • Ensure that the quality of the educational programme is assessed and maintained in association with patients. **Healthcare Professional:** • Ensure that all patients enrolled onto a pulmonary rehabilitation programme have access to a structured education programme that covers the areas outlined in the BTS Pulmonary Rehabilitation Guideline. **Commissioners:** • Ensure that pulmonary rehabilitation service providers have access to a team that are competent to give education advice in the areas outlined in the BTS Pulmonary Rehabilitation Guideline. **People attending pulmonary rehabilitation:** • Once enrolled onto a pulmonary rehabilitation programme, attendees should receive a structured education programme and have the opportunity to ask questions, in line with content set out in the BTS Pulmonary Rehabilitation Guideline.

Source guidance	BTS Guideline on Pulmonary Rehabilitation in Adults, 2013 (3) NHS Service specification: Pulmonary Rehabilitation Service (4)
Mapping	Domain 2: Enhancing quality of life for people with long-term conditions Domain 3: Helping people to recover from episodes of ill health or following injury Domain 4: Ensuring that people have a positive experience of care

Quality Statement

Quality statement 7	**People completing pulmonary rehabilitation are provided with an individualised structured, written plan for ongoing exercise maintenance.**
Rationale	• The development of an individualised written exercise plan is intended to encourage ongoing exercise in people with chronic respiratory conditions. • It should include aerobic and strength exercises alongside giving information about local gyms, walking clubs and local amenities.
Quality measure	**Structure:** • Evidence of local arrangements to ensure that all people completing pulmonary rehabilitation are provided with an individualised written plan for ongoing exercise after leaving the programme. • The exercise plan should be co-produced by rehabilitation staff together with individuals completing the programme. **Process:** • Proportion of people completing pulmonary rehabilitation who have an individualised written exercise plan. **Numerator** • The number of people completing pulmonary rehabilitation who have an individualised written exercise plan. **Denominator** • The total number of people completing pulmonary rehabilitation.
Description of what the quality statement means for each audience	**Service Provider:** • Ensure systems are in place to provide people completing pulmonary rehabilitation with an individualised written exercise plan. **Healthcare Professional:** • Ensure all people completing pulmonary rehabilitation are provided with an individualised written exercise plan. Ensure patients are involved in co-producing the exercise plan and are responsible for adhering to the plan. **Commissioners:** • Ensure that services record the provision of an individualised written exercise plan on completing pulmonary rehabilitation. **People completing pulmonary rehabilitation:** • To be involved in creating and receiving an individualised written exercise plan and to be aware of their own responsibility in adhering to the plan.
Source guidance	BTS Guideline on Pulmonary Rehabilitation in Adults, 2013 (3) NHS Service specification: Pulmonary Rehabilitation Service (4) National COPD Audit Programme 2013-2016 (7)
Mapping	Domain 2: Enhancing quality of life for people with long-term conditions Domain 4: Ensuring that people have a positive experience of care

Quality Statement

Quality statement 8	**People attending pulmonary rehabilitation have the outcome of treatment assessed using as a minimum, measures of exercise capacity, dyspnoea and health status.**
Rationale	• Initial assessments provide an opportunity to objectively determine the baseline status of people. In addition, the baseline exercise capacity provides the basis of the individualised exercise prescription. • Objectively measuring exercise capacity, dyspnoea and health status using validated outcome tools before and after pulmonary rehabilitation will: • Demonstrate individual benefit and can provide valuable individual feedback. • Provide quality assurance information for pulmonary rehabilitation services (see QS 9). • Other measures of pulmonary rehabilitation outcome (such as muscle strength, psychological status, activities of daily living, physical activity, self-efficacy and nutritional status) may be of benefit in assessing individual benefit.
Quality measure	**Structure:** • Evidence of validated measurement of exercise capacity, dyspnoea and health status at the start and end of a pulmonary rehabilitation programme. **Process:** • Proportion of people who perform an assessment of exercise capacity, dyspnoea and health status at the start and after completion of a pulmonary rehabilitation programme. **Numerator 1** • Number of people completing assessments of health status, dyspnoea and exercise capacity at outset /initial assessment. **Denominator 1** • Number of people attending initial assessment for pulmonary rehabilitation. **Numerator 2** • Number of people completing assessments of health status, dyspnoea and exercise capacity after completion of pulmonary rehabilitation. **Denominator 2** • Number of people completing pulmonary rehabilitation.

Description of what the quality statement means for each audience	**Service Provider:** • Ensure that measures are competently assessed in line with recommended guidance at the initial and discharge assessments. • Ensure programme venue has facilities, equipment and space to conduct necessary measures. • Ensure measurements to assess other elements of pulmonary rehabilitation are accommodated if possible (e.g. muscle strength, psychological status, activities of daily living, physical activity, self-efficacy and nutritional status. **Healthcare Professional:** • Healthcare professionals have relevant competencies to perform the assessments. • Healthcare professionals understand the importance of the essential assessments and the contribution that other measures can provide. • That the initial exercise assessment provides basis of the individualised exercise prescription. **Commissioners:** • Ensure the pulmonary rehabilitation programme encompasses assessments in addition to the programme. • Ensure the pulmonary rehabilitation programme is adequately resourced to permit assessments. **People with COPD:** • Are assessed in terms of exercise capacity and health status as a minimum at the start and end of the programme and understand the importance of these assessments.
Source guidance	BTS Guideline on Pulmonary Rehabilitation in Adults, 2013 (3) NHS Service specification: Pulmonary Rehabilitation Service (4) National COPD Audit Programme 2013-2016 (7)
Mapping	Domain 2: Enhancing quality of life for people with long-term conditions

Quality Statement

Quality statement 9	**Pulmonary rehabilitation programmes conduct an annual audit of individual outcomes and process.**
Rationale	• Pulmonary rehabilitation programmes should achieve a minimum standard of individual outcome, which should be measured in every person graduating. • Until national audit standards are established, a majority of people are expected to achieve the minimum clinically important improvement in the chosen exercise test and a majority of people should show an improvement in dyspnoea and health status. • Pulmonary rehabilitation programmes should assess patient experience and analyse at least annually to use the feedback to improve the service. • Pulmonary rehabilitation programmes should achieve a minimum level of commencement, adherence and graduation. Until national audit standards are established programmes should record their rates annually to ensure they are not worsening year-on-year.
Quality measure	**Structure:** • Evidence of an annual audit of individual outcomes for each pulmonary rehabilitation programme. • Evidence of annual survey/assessment of patient experience. • Evidence of an annual audit of rates of commencement, adherence and completion. **Process:** • Proportion of people completing pulmonary rehabilitation who achieve satisfactory clinical outcomes for health status and exercise performance. Data to be measured against accepted Minimally Clinically Important Differences (MCIDs) or national audit figures. • Proportion of people enrolled to pulmonary rehabilitation that adhere to and complete the programme and final assessment. Data to be measured against national audit figures. **Numerator 1** • Number of pulmonary rehabilitation programmes who complete an annual audit of outcome measurements. **Denominator 1** • Number of pulmonary rehabilitation programmes nationally. **Numerator 2** • Number of people completing pulmonary rehabilitation who achieve the minimum clinically important improvement in the chosen outcome measures. **Denominator 2** • Number of people enrolled to pulmonary rehabilitation.

Description of what the quality statement means for each audience	**Service Provider:** • Ensure the systems are in place to record and audit individual outcomes and process. • Ensure systems in place to perform an annual survey of patient experience. **Healthcare Professional:** • Ensure outcomes are recorded at baseline and post pulmonary rehabilitation assessments. • Ensure an annual survey of patient satisfaction is completed. • Ensure referral, completion, adherence and completion rates are recorded. • Ensure an annual audit of outcome measures, patient experience and completion rates is conducted and reported. • Ensure results are compared to previous audits, national audit data and accepted MCIDs for the chosen outcome measurements. **Commissioners:** • Ensure pulmonary rehabilitation programmes are adequately resourced to complete assessments and annual audits. • Ensure resource is available to facilitate participation in national and regional audits. **People attending pulmonary rehabilitation:** • Undertake assessment of exercise performance, dyspnoea and health status before pulmonary rehabilitation and after graduation. • Complete the patient satisfaction questionnaire when circulated.
Source guidance	BTS Guideline on Pulmonary Rehabilitation in Adults, 2013 (3) NHS Service specification: Pulmonary Rehabilitation Service (4) National COPD Audit Programme 2013-2016 (7)
Mapping	Domain 2: Enhancing quality of life for people with long-term conditions Domain 4: Ensuring that people have a positive experience of care

Quality Statement

Quality statement 10	**Pulmonary rehabilitation programmes produce an agreed standard operating procedure.**
Rationale	• Needs vary between pulmonary rehabilitation programmes and thus indicators of the core principles of accessibility, safety, effectiveness and capacity need to be aligned to the context of the local patient population and environment. • A standard operating procedure (SOP) document, setting out policies for accessibility, patient safety, minimum staffing levels, capacity and physical environment will ensure these needs are met. • Appropriate venues should be available for the provision of pulmonary rehabilitation and these should be risk assessed. • There should be adequate provision of equipment essential to the delivery of the components of a programme and this should include emergency equipment. • Safety systems should be in place, to include procedures to deal with adverse events arising at a rehabilitation venue. • Programmes should be resourced to enable staff capacity, skill mix and competency to align to the level of patient need. It is widely accepted that there should be a minimum of 2 healthcare professionals at a rehabilitation session; however programmes that include people with complex needs and/or supplemental oxygen will require a higher staffing ratio, higher grade or different skill mixes. Calculation of required staffing should include consideration of group size and provision for absence. Consideration should be given to the staffing/facilities needed for the safe treatment of patients referred following discharge for AECOPD (QS 3) as these patients may have more complex/severe disease. • A competency framework for the rehabilitation team should be in place to ensure that team members have the required skills to deliver a programme. • People should be able to access pulmonary rehabilitation in a timely manner from referral. Access to programmes should be available from all areas of the local health economy with a well disseminated referral pathway.
Quality measure	**Structure:** • Evidence of a documented SOP setting out a delivery framework detailing policies for accessibility, safety, effectiveness and capacity which has been agreed across commissioners, providers and patients. **Process:** • The proportion of programmes producing a documented SOP as described above. **Numerator** • Number of programmes with a documented SOP. **Denominator** • Number of pulmonary rehabilitation programmes nationally.

Description of what the quality statement means for each audience	**Service Provider:** • Ensure that for each pulmonary rehabilitation programme, there is a documented SOP setting out a delivery framework detailing policies for accessibility, safety, effectiveness and capacity and ensure that this is has been agreed with commissioners and patients. • Ensure the pulmonary rehabilitation programme is delivered in line with the agreed SOP. **Healthcare Professional:** • Ensure that the pulmonary rehabilitation programme is delivered as outlined in the documented SOP. **Commissioners:** • Ensure that pulmonary rehabilitation is adequately resourced to deliver the service in line with the agreed SOP. **People attending pulmonary rehabilitation:** • To have local and timely access to a programme which has a documented delivery framework supporting accessibility, quality, safety and capacity matched to demand.
Source guidance	BTS Guideline on Pulmonary Rehabilitation in Adults, 2013 (3) NHS Service specification: Pulmonary Rehabilitation Service (4) The operating framework for the NHS in England 2012/13 (12)
Mapping	Domain 2: Enhancing quality of life for people with long-term conditions Domain 4: Ensuring that people have a positive experience of care Domain 5: Treating and caring for people in a safe environment and protecting them from avoidable harm

Appendix 1

NHS domains (12)

1: Preventing people from dying prematurely

2: Enhancing quality of life for people with long-term conditions

3: Helping people to recover from episodes of ill health or following injury

4: Ensuring that people have a positive experience of care

5: Treating and caring for people in a safe environment and protecting them from avoidable harm

Appendix 2

Abbreviations

ACPRC	Association of Chartered Physiotherapists in Respiratory Care
AECOPD	Acute exacerbation of COPD
BTS	British Thoracic Society
COPD	Chronic obstructive pulmonary disease
COT	College of Occupational Therapists
DoH	Department of Health
GP	General Practitioner
ILD	Interstitial lung disease
IMPRESS	Improving and integrating respiratory services
MCID	Minimally clinically important difference
MRC	Medical Research Council
NHS	National Health Service
NICE	National Institute for Health and Care Excellence
PCRS	Primary Care Respiratory Society
PLC	Public Liaison Committee
POSC	Professional and Organisational Standards Committee
QS	Quality standard
SOCC	Standards of Care Committee
SOP	Standard operating procedure

Appendix 3

MRC Dyspnoea Scale (13)

1 Not troubled by breathlessness except on strenuous exercise

2 Short of breath when hurrying or walking up a slight hill

3 Walks slower than contemporaries on level ground because of breathlessness or has to stop for breath when walking at own pace

4 Stops for breath after walking about 100m or after a few minutes on level ground

5 Too breathless to leave the house, or breathless when dressing or undressing

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