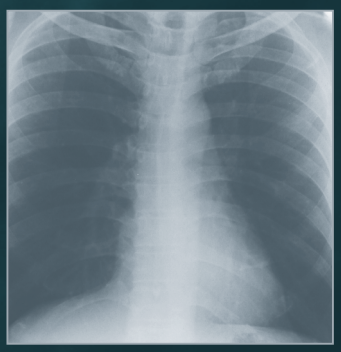
# National COPD Audit Programme



## Pulmonary Rehabilitation: Steps to breathe better

National Chronic Obstructive Pulmonary Disease (COPD) Audit Programme: Clinical audit of Pulmonary Rehabilitation services in England and Wales 2015

**National clinical audit executive summary February 2016**

Prepared by:

Royal College of Physicians

British Thoracic Society

In partnership with:

PCRS UK Primary Care Respiratory Society UK

RCGP Royal College of General Practitioners

British Lung Foundation

Commissioned by:


Working in wider partnership with:





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**Healthcare Quality Improvement Partnership (HQIP)**

The National COPD Audit Programme is commissioned by the Healthcare Quality Improvement Partnership (HQIP) as part of the National Clinical Audit Programme (NCA). HQIP is led by a consortium of the Academy of Medical Royal Colleges, the Royal College of Nursing and National Voices. Its aim is to promote quality improvement, and in particular to increase the impact that clinical audit has on healthcare quality in England and Wales. HQIP holds the contract to manage and develop the NCA Programme, comprising more than 30 clinical audits that cover care provided to people with a wide range of medical, surgical and mental health conditions. The programme is funded by NHS England, the Welsh Government and, with some individual audits, also funded by the Health Department of the Scottish Government, DHSSPS Northern Ireland and the Channel Islands.

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| Document purpose | To disseminate the results of the national clinical audit of Pulmonary Rehabilitation services in England and Wales 2015 |
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| Author | Steiner M, Holzhauer-Barrie J, Lowe D, Searle L, Skipper E, Welham S, Roberts CM (on behalf of the National COPD Audit Programme: pulmonary rehabilitation workstream) |
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| Audience | Healthcare professionals, NHS managers, chief executives and board members, service commissioners, policymakers, voluntary organisations, patient support groups, COPD patients, their families/carers and the public |
| Description | This is the second of the COPD Pulmonary Rehabilitation audit reports, published as part of the National COPD Audit Programme.<br>This report details national data relating to Pulmonary Rehabilitation delivered in England and Wales. It also documents attainment against relevant Pulmonary Rehabilitation guidelines and quality standards as published by the British Thoracic Society (BTS) in 2013 and 2014.<br>The report is relevant to anyone with an interest in COPD. It provides a comprehensive picture of Pulmonary Rehabilitation services, and will enable lay people, as well as experts, to understand how COPD services function currently, and where change needs to occur.<br>The information, key findings and recommendations outlined in the report are designed to provide readers with a basis for identifying areas in need of change and to facilitate development of improvement programmes that are relevant not only to Pulmonary Rehabilitation programmes but also to commissioners and policymakers. |
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| Related publications | • *Pulmonary Rehabilitation: Time to breathe better. National Chronic Obstructive Pulmonary Disease (COPD) Audit Programme: Resources and organisation of pulmonary rehabilitation services in England and Wales 2015.* London: RCP, 2015. www.rcplondon.ac.uk/projects/outputs/pulmonary-rehabilitation-time-breathe-better<br>• Department of Health. *An outcomes strategy for people with chronic obstructive pulmonary disease (COPD) and asthma in England*. London: DH, 2011. www.gov.uk/government/publications/an-outcomes-strategy-for-people-with-chronic-obstructive-pulmonary-disease-copd-and-asthma-in-england<br>• NHS England. *NHS Outcomes Framework – 5 domains resources*. www.england.nhs.uk/resources/resources-for-ccgs/out-frwrk/ [accessed November 2015]<br>• British Thoracic Society. *BTS guideline on pulmonary rehabilitation in adults*. London: BTS, 2013. www.brit-thoracic.org.uk/guidelines-and-quality-standards/pulmonary-rehabilitation-guideline/<br>• British Thoracic Society. *BTS quality standards for pulmonary rehabilitation in adults*. London: BTS, 2014. www.brit-thoracic.org.uk/guidelines-and-quality-standards/pulmonary-rehabilitation-quality-standards/<br>• National Institute for Health and Clinical Excellence. Chronic Obstructive Pulmonary Disease in over 16s: diagnosis and management *(CG101)*. London: NICE, 2010. www.nice.org.uk/guidance/CG101<br>• National Institute for Health and Clinical Excellence. *Chronic obstructive pulmonary disease quality standard (QS10)*. London: NICE, 2011. www.nice.org.uk/Guidance/QS10 |
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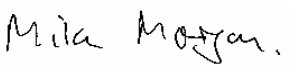
# Foreword

It is an honour to provide some preliminary comments for this report which forms the second part of the Pulmonary Rehabilitation component of the National COPD Audit. In this case the report documents the clinical outcomes of patients undergoing Pulmonary Rehabilitation in England and Wales. The audit is the largest dataset of patients undergoing Pulmonary Rehabilitation that has ever been published and the authors are to be congratulated on this truly magnificent achievement.

Pulmonary Rehabilitation is one of the few clinical services where patient outcomes are routinely measured, and in this case the programmes do not disappoint with over 90% of patients undergoing rehabilitation having had an objective outcome assessment. The majority of patients who undergo Pulmonary Rehabilitation have a demonstrable improvement in exercise capacity and health status. The audit therefore confirms that pulmonary rehabilitation is an effective treatment and that real-life pulmonary rehabilitation has benefits that are equivalent to those in the underlying research trials.

It is clear, however, that there are still improvements that can be made. The fact that waiting times beyond 3 months are commonplace suggests that we still lack capacity and that awareness of the benefits of Pulmonary Rehabilitation remains low. Although rehabilitation is effective for those that complete the programme there is a significant attrition in patients who are referred but do not subsequently enrol or complete treatment. This suggests that there is a lack of awareness or a clear knowledge among health professionals of the benefits of rehabilitation, although access in terms of transport or locality may also be an issue.

There are some other interesting illuminations of the service, including the fact that rolling programmes appear to be more efficient than cohort programmes and should be recommended where possible. There may also be some perverse case selection such that the more disabled patients who may have the most to gain are not recruited. This is probably a reflection of the confidence of the staff as well as lack of physical access. The programmes themselves are clearly capable of using the outcome data to lever quality improvement and this should form a basis for discussion with commissioners to ensure that high-quality services evolve. In all, this is an audit to be proud off, in terms of its ambition and scale. The results are welcome, but they do show that in spite of generally good outcomes there is still room for improvement.



**Professor Mike Morgan**
**National Clinical Director for Respiratory Services in England**

## Executive summary

Pulmonary Rehabilitation (PR) is a multi-component healthcare intervention that improves symptoms, exercise performance and quality of life in people with chronic obstructive pulmonary disease (COPD) and other long-term respiratory conditions.

This report details the second part of the PR component of the National COPD Audit Programme. The audit presents clinical outcomes of a cohort of 7413 patients who were assessed for PR by 210 programmes across England and Wales over 3 months in early 2015. This represents the largest PR audit dataset available to date worldwide. Data are presented on the clinical characteristics of enrolled patients, the care received and clinical outcomes measured at assessment and discharge. The findings and recommendations in the clinical audit are linked to those presented in the 2015 audit of the resources and organisation of PR services (1).

There is a strong evidence base to support the provision of PR as part of standard treatment offered to patients with COPD. This evidence is summarised in the British Thoracic Society (BTS) PR guidelines (2), which subsequently informed the development of BTS quality standards (QSs) for PR (3). It is against these quality standards that the performance of PR services is assessed in both this audit report and the audit of the resources and organisation of PR.

**Summary of recommendations**

**These recommendations are directed collectively to commissioners, provider organisations, referrers for PR and to PR practitioners themselves. They are also relevant to patients, patient support groups and voluntary organisations. Implementing these recommendations will require discussions between commissioners and providers, and we suggest that the findings of the audit are considered promptly at board level in these organisations so that these discussions are rapidly initiated. Commissioners and providers should ensure they are working closely with patients, carers and patient representatives when discussing and implementing these recommendations. This report identifies two broad areas for improvement: firstly action to improve referral and access to PR; and secondly action to improve the quality of treatment when patients attend PR.**

1. **Improving access to PR**
    a. **Providers and commissioners should ensure that robust referral pathways for PR are in place and that PR programmes have sufficient capacity to assess and enrol *all* patients within 3 months of receipt of referral.**
    b. **Referral pathways should be developed to ensure *all* patients hospitalised for acute exacerbations of COPD are offered referral for PR and that those who take up this offer are enrolled within 1 month of discharge.**
    c. **Providers and commissioners should work together to make referrers (including those working in general practice and community services) and patients fully aware of the benefits of PR, to encourage referral.**
    d. **PR programmes should take steps to ensure their services are sufficiently flexible to encourage patients who are referred for PR to complete treatment.**

2. **Improving the care provided by PR programmes**
    a. **All PR programmes should examine and compare their local data with accepted thresholds for clinically important changes in the clinical outcomes of PR and with the national picture. For *all* programmes, this should prompt the development of a local plan aimed at improving the quality of the service provided.**

b. **PR programmes locally should review their processes to ensure *all* patients attending a discharge assessment for PR are provided with a written, individualised plan for ongoing exercise.**
c. **PR programmes locally should review their processes to ensure all outcome assessments are performed to acceptable technical standards (4).**

The data presented in this audit report provide insight into the experiences of patients with COPD who attend PR services across England and Wales. The data demonstrate that, in line with the published literature on the effectiveness of PR, patients are likely to achieve clinically important improvement in exercise performance and health status if they take up and complete PR. This is the first time patient outcomes from treatment provided in routine clinical practice across the country have been audited, confirming that the findings of clinical trials of PR are deliverable in real-life clinical settings. Programme participation and case acquisition rates were high – a testament to the widespread culture of objective outcome measurement in PR practice in the UK and the commitment of PR programmes to using data to inform and improve services.

Inevitably, the scale and frequency of individual patient benefit varies substantially between patients and between programmes. As well as providing a national picture of the overall effectiveness of PR services, the data offer a unique opportunity for individual programmes to compare outcomes locally with the national picture and with accepted clinically important changes in validated outcome measures such as exercise capacity and health status. Where these outcomes are lower than expected, we urge local programmes to review and revise their processes as part of an action plan aimed at improving the quality of service provided and thereby the benefits accrued by patients. However, we believe *all* programmes should use the opportunity provided by this audit to develop and improve the quality and outcome of their service.

The audit also identifies areas where the care that patients experience could be improved and highlights the need to widen access to treatment so that a greater number of patients receive these benefits. Waiting times for assessment for PR show considerable variation, with significant numbers (37%) waiting longer than the 3 months mandated in BTS Quality Standard 1 (QS1). Unacceptably long waits for treatment are more prevalent in cohort programmes (perhaps unsurprisingly because patients have to wait until the start of the next scheduled programme to commence treatment) but the problem is not restricted to programmes of this design. We urge commissioners and providers to take action to shorten waiting times so that *all* patients receive an offer to commence PR within 3 months of receipt of referral. QS1 identifies the longest a patient should be expected to wait for treatment, but we believe PR services should take steps to reduce waiting times further where possible.

Data from the 2015 audit of resources and organisation of PR (1) suggest that there is significant under-referral of eligible patients with COPD for PR. This applies both to PR offered routinely to patients with stable disease and to patients after discharge from hospital following acute exacerbations of COPD. The available evidence suggests that successful completion of PR in both these settings reduces subsequent healthcare utilisation (such as days spent in hospital). In line with the recommendations of the resources and organisation of PR audit report, we hope and expect that action will be taken to increase referral rates of eligible patients. It will therefore also be crucial that PR services are sufficiently resourced to meet this demand while ensuring individual waits for treatment are acceptable and in line with quality standards.

The clinical audit confirms reports in the scientific literature that many patients who are referred for PR either do not enrol or do not complete treatment (40% of those assessed). We recognise this is a complex and multifactorial problem but we believe concerted action is needed by both referring and provider organisations to provide greater awareness of the benefits of completing PR to both referring medical practitioners (in hospitals and general practice) and to patients. Discussions about referral for PR should take a high priority in consultations both in primary and secondary care, and patients should be encouraged to ask about referral for PR when they see their doctor. Attending PR is demanding on patients' time and

effort, and barriers to successful completion of treatment should be proactively anticipated and overcome where possible. For example, we encourage providers to take steps to make PR services more accessible to patients by ensuring that transport for treatment is available to patients who find travel difficult and that sufficient flexibility in scheduling of sessions is provided for patients who have other work or family commitments.

In line with the 2015 report of the resources and organisation of PR services (1), the data in this report identify aspects of treatment provision that could be improved. For example, outcome assessment of exercise performance was not always performed to accepted technical standards and ongoing exercise plans were not provided to all patients when they were discharged from the service. This latter measure is particularly important if the benefits of PR are to be sustained beyond the end of the course. We have made recommendations in this report that these deficiencies are actively addressed.

The provision of PR is widely mandated in health policy documents and initiatives for people with COPD including National Institute for Health and Care Excellence (NICE) quality standards (5) and clinical commissioning group (CCG) outcomes indicator sets for both England and Wales (2015/16) (6,7). The findings of the audit confirm the broadly high standards of care and commitment of healthcare staff working in PR services across England and Wales. We hope the findings of this and other PR audit reports will drive broader access to PR, service improvement and enhanced patient outcomes for patients with COPD. The enthusiasm with which PR programmes have participated in the audit suggests that the UK PR community is well placed to achieve these objectives.

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