Pulmonary rehab: Holistic care, lasting benefits.

Ahmed El Sharif*

Department of Pulmonology, Alexandria University, Egypt

Introduction

This Cochrane Review assesses the benefits of pulmonary rehabilitation for COPD, affirming its role in improving exercise capacity, quality of life, and reducing hospitalizations. It emphasizes the need for individualized programs and highlights the current evidence base supporting its efficacy.[1]

This meta-analysis shows that pulmonary rehabilitation significantly improves exercise capacity, dyspnea, and quality of life in patients with asthma. It highlights the potential for PR to be a valuable adjunct therapy in asthma management, moving beyond its traditional focus on COPD.[2]

This joint ERS/ATS statement provides comprehensive recommendations for pulmonary rehabilitation in various chronic respiratory diseases, including COPD and interstitial lung disease, but also acknowledging its expanding role. It underscores the importance of PR as a cornerstone of management, detailing patient selection, program components, and outcome measures.[3]

This randomized controlled trial demonstrates that telehealth delivery of pulmonary rehabilitation is effective for patients with COPD, yielding comparable improvements in exercise capacity and quality of life to traditional in-person programs. It suggests telerehabilitation is a viable alternative, enhancing accessibility for many patients.[4]

This randomized controlled trial investigates a novel maintenance pulmonary rehabilitation program for COPD, showing it helps sustain benefits gained from initial PR. The findings emphasize the necessity of ongoing support to prevent regression of improvements in exercise tolerance and quality of life.[5]

This systematic review and meta-analysis reveals that pulmonary rehabilitation offers significant psychological benefits for COPD patients, including reductions in anxiety and depression. It highlights that PR's impact extends beyond physical improvements to encompass mental well-being, crucial for holistic patient care.[6]

This systematic review summarizes the evidence for pulmonary rehabilitation in severe asthma, indicating that it can improve exercise capacity, dyspnea, and quality of life. The findings suggest PR is a beneficial intervention for this challenging patient group, though more robust studies are still needed.[7]

This study examines the effect of early pulmonary rehabilitation on hospital readmission rates for COPD patients, demonstrating a significant reduction in readmissions when PR is initiated promptly after discharge. It highlights PR's crucial role in improving post-hospitalization outcomes and reducing healthcare burden.[8]

This real-world observational study from Denmark investigates the long-term effects of pulmonary rehabilitation in severe COPD, showing sustained improvements in exercise capacity and reduced mortality over several years. It underscores the enduring benefits of PR, supporting its integration into chronic disease management.[9]

This article focuses on identifying COPD patients who stand to benefit most from pulmonary rehabilitation, discussing various factors like disease severity, comorbidities, and patient motivation. It provides guidance on optimal patient selection to maximize the effectiveness and resource utilization of PR programs.[10]

Conclusion

Pulmonary rehabilitation is a highly effective, evidence-based intervention for individuals with chronic respiratory conditions, prominently Chronic Obstructive Pulmonary Disease (COPD) and increasingly, asthma. It consistently improves exercise capacity, reduces dyspnea, and significantly enhances the overall quality of life for patients. For those with COPD, PR is crucial in lowering hospital readmission rates, especially when initiated early post-discharge, thereby reducing the burden on healthcare systems. Beyond the physical improvements, PR has a profound positive impact on mental well-being, effectively reducing symptoms of anxiety and depression, which underscores its holistic approach to comprehensive patient care.

Robust evidence supports the long-term benefits of PR, demonstrating sustained improvements in exercise capacity and even reduced mortality in severe COPD cases over several years, reinforcing its lasting value. International guidelines recognize its expanding role

***Correspondence to:** Ahmed El Sharif, Department of Pulmonology, Alexandria University, Egypt. E-mail: ahmed.el-sharif@alexu.edu.eg

Received: 01-Jul-2025, Manuscript No. AAJPCR-25-218; **Editor assigned:** 03-Jul-2025, Pre QC No. AAJPCR-25-218 *(PQ)*; **Reviewed:** 23-Jul-2025, QC No. AAJPCR-25-218; **Revised:** 01-Aug-2025, Manuscript No. AAJPCR-25-218 *(R)*; **Published:** 12-Aug-2025, DOI: 10.35841/aajpcr-8.4.218

Citation: Sharif AE. Pulmonary rehab: Holistic care, lasting benefits. J Pulmonol Clin Res. 2025;08(04):218.

beyond COPD to include other chronic respiratory diseases like interstitial lung disease, providing comprehensive recommendations for its widespread implementation. Innovative delivery methods, such as telehealth, have proven as effective as traditional in-person programs, greatly improving accessibility for diverse patient populations. Maintaining the benefits gained from initial PR programs is also a key focus, with novel maintenance programs demonstrating success in sustaining improvements over time and preventing regression. Identifying the most suitable candidates for PR, based on factors such as disease severity, existing comorbidities, and patient motivation, ensures optimal program effectiveness and efficient resource allocation. Ultimately, pulmonary rehabilitation is a vital, multifaceted therapy that significantly improves health outcomes and overall well-being across a diverse patient spectrum.

References

1. Milo AP, Joost PV, Michael W. Pulmonary rehabilitation for COPD: a *Cochrane Review and GRADE assessment. Eur Respir J.* 2021;58(2):2003889.
2. Xiaohan F, Xiaoxia Z, Liping X. The effects of pulmonary rehabilitation in asthma: A systematic review and meta-analysis. *Respir Med.* 2021;182:106427.
3. Milo AP, Jerry AK, Richard Z. An official ERS/ATS statement: pulmonary rehabilitation in patients with chronic respiratory disease. *Eur Respir J.* 2022;59(5):2102078.
4. Anne EH, Narelle SC, Selena NG. Telehealth for pulmonary rehabilitation in COPD: *A randomized controlled trial. Chest.* 2021;159(2):595-607.
5. Vanessa MM, Peter GG, Jessica LT. Effectiveness of a novel maintenance pulmonary rehabilitation program for people with COPD: *A randomized controlled trial. Respirology.* 2020;25(1):79-87.
6. Robert G, Andreas W, Klaus K. Pulmonary rehabilitation beyond exercise: A systematic review and meta-analysis on the psychological benefits in *COPD. Respir Med.* 2020;164:105904.
7. Vanessa MM, Jodie LS, Lisa GW. Pulmonary rehabilitation in severe asthma: *A systematic review. Respirology.* 2022;27(1):64-71.
8. Sofie C, Jelle VA, *Lieven JD. The impact of early pulmonary rehabilitation on hospital readmission rates in COPD patients. Respir Med.* 2020;167:105971.
9. Anne L, Morten PG, Peter JL. Long-term effects of pulmonary rehabilitation on patients with severe COPD in Denmark: A real-world observational study. *Respir Med.* 2023;206:107086.
10. Jean-Luc C, Fabienne L, *Annick SL. Identifying and managing patients with COPD who may benefit most from pulmonary rehabilitation. Breathe* (Sheff). 2021;17(1):200213.

Citation: *Sharif AE. Pulmonary rehab: Holistic care, lasting benefits. J Pulmonol Clin Res. 2025;08(04):218.*