



Editorial

Pulmonary rehabilitation... yes but no[☆]

Rehabilitación pulmonar... sí pero no

Eulogio Pleguezuelos,^{a,*} Marc Miravitles^b

^a Unidad de Rehabilitación Pulmonar, Servicio Medicina Física y Rehabilitación, Hospital de Mataró, Mataró, Spain

^b Servicio de Neumología, Hospital Universitari Vall d'Hebron (HUVH), Vall d'Hebron Institut de Recerca (VHIR), Barcelona, Spain



The benefits of pulmonary rehabilitation (PR) in patients with chronic obstructive pulmonary disease (COPD) are widely described in the literature, and familiar to all. The importance assigned to PR has risen dramatically, and rehabilitation has become the lynchpin of non-pharmacological treatment of COPD, as reflected in the 2017 GesEPOC guidelines.¹

Patients who participate in PR programs usually present severe or very severe airflow obstruction and a high rate of primarily cardiovascular comorbidities,² and, as such, are considered high-risk. PR programs are safe, as demonstrated in a recent study which found an incidence of major complications of 2.7/10,000 hours of PR, and 6.5/10,000 hours of PR for minor complications.³

Cost-effectiveness or cost-utility is a factor that is gaining importance in the evaluation of health strategies. PR compares very favorably with other strategies such as pharmacological treatment or telemedicine. In a study conducted in the United Kingdom, PR was second only to vaccination and smoking cessation in terms of cost-utility. The cost of PR was estimated at £2,000-£8,000 per quality-adjusted life year, whereas the cost of drug treatments ranged from £7,000 in the case of tiotropium to £7,000-£183,000 for triple therapy.⁴

However, despite the apparent interest in the effectiveness, efficiency and safety of PR, uptake in Spain has been low. Miranda et al. estimated that 0.3%-0.6% of patients with severe-very severe COPD participated in a PR program.⁵ In the U.S., the rate of participation in PR rose from 2.6% in 2003 to 3.7% in 2012.⁶

In 2015, the American Thoracic Society (ATS) and the European Respiratory Society (ERS) issued a joint statement on improving the implementation, use, and administration of PR, underscoring the need for increasing awareness among patients and healthcare providers.⁷ However, this call for action from both societies failed to translate to an increase in the implementation of these programs.

It is important to highlight the gap between the exponential growth in interest in PR reflected in the literature and among the scientific community and the lack of progress in implementing

PR programs in the clinical setting: in other word, yes but no... It is difficult to evaluate the possible causes of this "yes but no" attitude, but it may be due to lack of resources, lack of support from institutions, lack of knowledge and information provided to patients, the tendency among both patients and professionals to associate physical medicine with rehabilitation and the musculoskeletal apparatus, and lack of knowledge and interest on the part of pulmonologists and rehabilitation specialists, among other factors. In a recent survey of 1,685 patients, 46% of respondents had never participated in a PR program, 20% of patients had never heard of PR, and 18% had not undertaken a PR program due to lack of information.⁸

A quick read of this editorial might suggest that our approach to PR needs to be changed in many respects, but the changes required are small and apparently simple and should not be difficult to introduce; yet years of clinical experience have shown that these modifications are difficult to achieve. We should start by changing our working environment, that is to say, at a local level, by increasing communication between the different professionals who share COPD patients.

There is no single solution for improving the uptake of PR, but all strategies begin by promoting collaboration among professionals and among the different scientific societies. Professionals must put the guideline recommendations into practice,^{1,7} and scientific societies must work together to create a common project, leaving aside any desire for protagonism, since the only protagonist is the patient. The aim of the common project should be to broadcast the benefits of PR in COPD patients and support the creation of PR units in primary, hospital, and home care.

We leave our readers with 2 questions for reflection: Are we doing everything we can to implement PR in our setting? And can we agree that failing to offer our patients a PR program might be considered malpractice?

Conflict of interests

Marc Miravitles has received speaker fees from AstraZeneca, Boehringer Ingelheim, Chiesi, Cipla, Menarini, Rovi, Bial, Zambon, CSL Behring, Grifols and Novartis; consultancy fees from AstraZeneca, Boehringer Ingelheim, Chiesi, Ferrer, GlaxoSmithKline, Bial, Gebro Pharma, CSL Behring, Laboratories Esteve, Ferrer,

[☆] Please cite this article as: Pleguezuelos E, Miravitles M. Rehabilitación pulmonar... sí pero no. Arch Bronconeumol. 2019;55:617–618.

* Corresponding author.

E-mail address: epleguezuelos@csdm.cat (E. Pleguezuelos).

Mereo Biopharma, Verona Pharma, TEVA, pH Pharma, Novartis, and Grifols, and research grants from GlaxoSmithKline and Grifols.

References

1. Pleguezuelos E, Gimeno-Santos E, Hernández C, Mata MDC, Palacios L, Piñera P, et al. Recommendations on non-Pharmacological Treatment in Chronic Obstructive Pulmonary Disease From the Spanish COPD Guidelines (GesEPOC 2017). *Arch Bronconeumol.* 2018;54(11):568–75.
2. Pleguezuelos E, Guirao L, Moreno E, Samitier B, Ortega P, Vila X, et al. Safety of Rehabilitation Program for COPD Patients. *Arch Bronconeumol.* 2018;54(2):111–2.
3. Negewo NA, Gibson PG, McDonald VM. COPD and its comorbidities: Impact, measurement and mechanisms. *Respirology.* 2015;20(8):1160–71.
4. Zoumot Z, Jordan S, Hopkinson NS. Emphysema: time to say farewell therapeutic nihilism. *Thorax.* 2014;69(11):973–5.
5. Miranda G, Gómez A, Pleguezuelos E, Capellas L. Rehabilitación respiratoria en España. Encuesta SORECAR. *Rehabilitacion (Mafr.).* 2011;45:247–55.
6. Nishi SP, Zhang W, Kuo YF, Sharma G. Pulmonary rehabilitation utilization in older adults with chronic obstructive pulmonary disease 2003 to 2012. *J Cardiopulm Rehabil Prev.* 2016;36(5):375–82.
7. Rochester CL, Vogiatzis I, Holland AE, Lareau SC, Marciniuk DD, Puhan MA, et al. An official American thoracic society/European respiratory society policy statement: enhancing implementation, use, and delivery of pulmonary rehabilitation. *Am J Respir Crit Care Med.* 2015;192(11):1373–86.
8. Rochester CL, Vogiatzis I, Powell P, Masefield S, Spruit MA. Patients' perspective on pulmonary rehabilitation: experiences of European and American individuals with chronic respiratory diseases. *ERJ Open Res.* 2018;4(4), 00085–2018.