Nonpharmacological interventions in COPD

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Shareable abstract (@ERSpublications)
In COPD, a holistic and yet personalised approach is mandatory if we want to improve risk management, to control symptoms and achieve disease remission. Global access to nonpharmacological interventions will be essential for these ambitious targets. https://bit.ly/3k7aGAa

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COPD is recognised as one of the major health challenges for the coming decades. This is primarily driven by a growing burden of the disease due to persistent exposure to tobacco smoke and environmental pollutants, an ageing population, and no curative therapies to date. To change the disease course, to reduce its societal impact and eventually eliminate the disease, a recent *Lancet* commission paper made a plea for a complete rethinking of our current approach in COPD [1]. One of the six major challenges identified is the huge unmet need for a personalised approach based on a holistic assessment of pathophysiological traits, clinical symptoms and patients' needs. Current pharmacological therapies may improve respiratory symptoms, quality of life and reduce exacerbation frequency, but the majority of COPD patients remain highly symptomatic despite optimised drug combinations and innovative inhalers.

To some extent, the absence of major breakthroughs in COPD medicines that impact on the origin and the course of the disease, has forced the COPD community to focus on nonpharmacological interventions. In fact, many of these interventions (smoking cessation, behavioural change programmes, self-management strategies, comprehensive pulmonary rehabilitation programmes, home-based oxygen therapies, models of integrated and palliative care, lung transplantation, *etc.*) were developed and validated in COPD, before being explored in other respiratory disease areas. Hence, these nonpharmacological interventions should always complement pharmacological approaches, as they often come with massive improvements in terms of symptoms and quality of life. They are able to increase exercise capacity, improve daily physical activities, and reduce mortality. As such, these therapies tell us that the negative perception of treatment options in COPD is misplaced and that it rather paralyses the field rather than to moving it forward.

The purpose of this series is to highlight the power of nonpharmacological interventions as well as to discuss their weaknesses and challenges. Montes de Oca and Laucho-Contreras [2] discuss the role of smoking cessation for primary and secondary prevention of COPD. We also hope to include a review of the evidence for vaccination in patients with COPD. In a forthcoming review, Troosters and colleagues focus on pulmonary rehabilitation and physical interventions. The importance of psychological [3] or nutritional assessments and interventions are further specified in two additional reviews. For more advanced disease in particular, the newest strategies for lung volume reduction in patients with emphysema are discussed in a forthcoming review. Next, an update is provided on the need and benefits of long-term oxygen therapy and home-based noninvasive ventilation [4], along with a state of the art on lung transplantation in case of end-stage disease [5].

In general, nonpharmacological interventions are based on solid evidence [6]. They provide us the rationale for appropriate case-finding and clinical phenotyping, which should be embedded in a framework of integrated care offering patient-tailored interventions during lifetime follow-up. However, for many patients, even in high income countries, the healthcare system is too fragmented and insufficiently directed towards prevention and chronic disease management. The need for strategies and coordinated action plans

that improve global access, not only to effective drugs, but also to multicomponent interventions at every stage of the disease, is imperative. Only then will personalised medicine in its true meaning be achieved in COPD and the hope for adequate risk management, total symptom control and disease remission will be justified.

For decades the perception of COPD has been negative. Today, COPD should no longer be considered as a self-inflicted disease, as it has many causes other than tobacco smoking. COPD has many faces that all look away from fixed irreversible airway obstruction and that warrant a patient-centric holistic approach beyond pharmacotherapy [1, 6]. If this series helps us to embrace this positive vision, we will make a huge step forward in clinical practice.

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