

COPD: Are we using all the tools we have?



COPD is the most common chronic respiratory disease and represents today the 4th cause of death worldwide; it has an estimated prevalence of 14.2% in Lisbon adult (over 40 years) population.¹ The high mortality of COPD is mainly due to exacerbations requiring hospitalization, and in patients with hypercapnia and respiratory acidosis, the mortality reaches 10%, increasing to 40% in the first year after hospital discharge. The goals of the treatment are symptomatic improvement, and preventing disease progression and exacerbations.

Dyspnoea is the main symptom of the disease, there are several possible measuring instruments but the Medical Research Council Dyspnoea Questionnaire (mMRC) with cross-cultural adaptation to the Portuguese population is the one usually recommended because of its sensitivity and ease of registration. As COPD is a chronic, progressive and multi-system disease, it is also important to understand its impact on patient quality of life and well-being, and so the CAT (COPD Assessment Test) was designed to measure these, and its use is recommended by international guidelines.² These tools cannot be ignored in daily clinical practice.

Adherence to treatment, and its improvement, is a critical issue in the treatment of patients with COPD. In the absence of a "best way" to measure adherence, subjective or self-reported methods, such as those exemplified by the MAT – Measurement of Treatment Adherence, validated for the Portuguese population in 2001,³ should be more widely used. MAT is a psychometric measure which is easy to use in clinical practice providing good sensitivity and specificity.

Despite the importance of knowing about adherence, some psychometric measures say little or nothing about the reasons for non-adherence. An instrument of evaluation of the beliefs about medicines, Escala de Crenças Acerca de Medicamentos, cross-cultural adaptation of the BMQ-Specific (Beliefs About Medicines Questionnaire)⁴ into Portuguese for the general population of medicine users, can help discover practical barriers to adherence to inhaled therapy. The BMQ, an eleven-item questionnaire with a five-item Necessity scale and a six-item Concerns scale, essentially studies intentional non-adherence, and it is easy to use in clinical practice.

Therapeutic success is also dependent on a good inhaler technique, it has been demonstrated by meta-analysis that when the patient uses them correctly, the various inhaler devices have similar therapeutic effects.⁵ We need to demonstrate at all medical visits how to use the inhaler devices correctly, but we have also to check how the patient uses it. Checklists⁶ with the number of steps for the correct use of devices, including a critical step which if not performed would result in no drug delivery, can be useful in clinical practice. The choice of the inhaler device is so important that some authors propose a single algorithm or checklist to guide selection⁷ in primary care practice.

The role of pulmonary rehabilitation in COPD has been carefully evaluated, with some benefits showing an A level of evidence. Pulmonary rehabilitation improves exercise capacity and health-related quality of life, reduces the exacerbations requiring hospitalizations and improves recovery

after hospitalization. In fact, pulmonary rehabilitation is regarded as one of the most effective non-pharmacological treatments.⁸ However, according to GOLD guidelines, physical activity is recommended for all patients with COPD only because it seems intuitively correct, but without COPD-specific evidence to support any recommendations. The 2015 CHEST and CTS Guideline,⁹ a document fully describing the current state of knowledge regarding the prevention of acute exacerbation of COPD, like many other papers, do not include any recommendations regarding physical activity in COPD. So, for therapeutic success we also need evidence concerning the importance of regular physical activity in all stages of COPD, outside the context of pulmonary rehabilitation, and how to get patient adherence, which can a difficult task.

Thus, in the absence of robust knowledge that would allow us to predict exacerbations, the main cause of mortality of COPD, using these tools gives the physician guidance about correct treatment according to the best medical evidence, and can improve adherence, aid device selection and correct inhalation technique.

Conflicts of interest

The author has no conflicts of interest to declare.

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