The relevance of normative values for the 6-minute walk test in patients with COPD: a clinical and scientific requirement

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Editorial

The relevance of normative values for the 6-minute walk test in patients with COPD: a

clinical and scientific requirement.

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The 6-minute walk test (6MWT) is an essential tool for assessing exercise capacity in

patients with chronic obstructive pulmonary disease (COPD), particularly in pulmonary

rehabilitation (1). In this setting, it is one of the most commonly used field tests:

recommended by numerous scientific societies, it allows for a simple, valid,

reproducible, and sensitive assessment (2,3). A minimal important difference (MID)

between 25 (4) and 35 meters (5) has been proposed for patients with COPD, with an

average MID of 30 meters (2). The 6MWT is used for functional diagnosis, therapeutic

follow-up, prognostic evaluation, and as a criterion for initiating pulmonary

rehabilitation (6). However, interpreting 6MWT performance requires reliable reference

values based on rigorous methodology. In clinical practice, clinicians often rely on normative values derived from heterogeneous populations, which may be geographically or ethnically distant, potentially biasing result interpretation and affecting subsequent medical decisions (7–9).

Performance on the 6MWT is influenced by numerous non-pathological factors: age, sex, height, weight, as well as potentially ethnicity, level of physical activity, sociocultural conditions, geographical environment (e.g., altitude, urbanization), and lifestyle habits. Therefore, it is unrealistic to assume that a single reference equation can apply to all patients, regardless of their population context. Normative values can vary significantly depending on the populations studied, which highlights the need for reference standards that are specific to local ethnic, geographic, and socio-economic contexts (10).

The availability of population-specific normative values—defined from representative, healthy samples assessed under standardized conditions—is now considered a scientific necessity. These values enable more accurate interpretation of individual performance, particularly for estimating the expected walking distance, and consequently, exercise capacity and the degree of functional limitation. This is why the article by Gimeno-Santos et al., published in this volume, holds significant scientific and clinical value. In the study by Gimeno-Santos et al. (10), the proposed normative values often differ from those available in the literature, which reinforces the importance of establishing reference standards tailored to each specific population studied.

In the management of patients with COPD, aligned with the principles of personalized medicine, the use of local normative values helps refine prognostic, tailor treatment strategies, and more accurately assess the impact of therapeutic interventions. It also

improves the identification of at-risk patients and helps avoid interpretive biases that could compromise referral to specialized care.

Therefore, research and publication of 6MWT reference values for each region or country—even for specific subpopulations—should be encouraged. This is both a matter of quality of care and scientific rigor. By incorporating the unique characteristics of each population into functional analysis, we move toward a more accurate, more relevant, and ultimately more useful assessment for our patients.

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