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Editorial

COPD With Comorbidities: A Clinical and Organizational Challenge for the 21st Century

EPOC con comorbilidades, un desafío clínico y organizativo del siglo XXI

Chronic obstructive pulmonary disease (COPD) today, more than ever, is considered a paradigm of a systemic, complex, and heterogeneous disease. Although it has long been defined by chronic irreversible airflow obstruction, its clinical expression, variability, and prognosis depend heavily on the coexistence of other pathologies or comorbidities. This reality, well known in clinical practice, is beginning to receive the attention it deserves in various research studies, clinical practice guidelines, and consensus documents.[1–4]

This broader approach is reflected the chapter entitled "Management of the COPD Patient with Comorbidities",[5] included in the updated "Referral Criteria in COPD. Continuity of Care" document, developed under the leadership of SEPAR in collaboration with 6 other scientific societies involved in the management of these patients.[4]

This consensus provides a comprehensive, up-to-date, and practical approach to the most prevalent and clinically significant comorbidities in patients with COPD. Particular emphasis is placed on classic cardiovascular risk factors, especially arterial hypertension and diabetes mellitus, and on heart failure, cognitive impairment, and mood disorders. The document also focuses on lesser-known yet equally important comorbidities, such as peripheral artery disease, iron deficiency, and dysphagia. All of these conditions are highly prevalent, adversely impact quality of life, and significantly contribute to increased morbidity and mortality.[3]

This focus is supported by several studies. The CLAVE study, for instance, evaluated a large and representative cohort of Spanish patients with COPD.[1] Its findings are conclusive: 94.1% of participants presented with at least one comorbidity, the most common being arterial hypertension (67.2%), dyslipidemia (52.6%), and diabetes mellitus (32.2%). The average number of comorbidities per patient was 4.4, underscoring the importance of actively screening for these conditions.[1] Moreover, it is well established that effective clinical management of COPD is closely linked to the appropriate treatment of its comorbidities and vice versa. As a result, these patients benefit from a multidisciplinary care structure that places individuals with COPD and comorbidities at the center of attention throughout their care pathway.[6]

The above-mentioned consensus document establishes clear and practical criteria aimed at enhancing continuity of care for this patient population across primary and specialized healthcare areas. It also defines specific clinical scenarios in which referral to respiratory medicine should be prioritized (including complex cases, special phenotypes or suspected early-stage COPD), while also promoting the active involvement of primary care physicians, internists, nurses, and both hospital- and community-based pharmacists to ensure appropriate follow-up and management of COPD patients with a high comorbidity burden. This approach is of particular importance for a specific patient profile: individuals over 65 years of age with multiple chronic conditions, frailty, and frequent hospital readmissions, for whom integrated, multidisciplinary strategies are essential.[5]

The traditional model of disease and process-based medicine is increasingly being replaced by patient-centered care, a paradigm shift that requires clearly defined care pathways (commonly referred to as the "patient journey"), coordinated multiprofessional teams, and interoperable information systems.[7,8]

From a clinical point of view, there is an urgent need to expand the use and implementation of risk stratification tools for these patients, including the COTE, BODEX, and CODEX indexes and frailty scales. Treatment plans must be regularly reviewed, tailored, and adjusted (up or down) for inhaled bronchodilators, cardiovascular and metabolic drugs, neuropsychiatric treatments, and other drug groups such as antiresorptive therapies in patients with osteoporosis—another often overlooked and underdiagnosed comorbidity in COPD patients.[9] From an organizational perspective, the promotion of integrated care models, including shared consultations or case management programs led by nursing staff, both in-hospital and in the community, is essential.

New lines of research continue to emerge. Recent studies suggest that some drugs used for other indications—such as SGLT2 inhibitors or GLP-1 receptor agonists for type 2 diabetes—may confer additional benefits in patients with COPD.[10,11] Research into the identification of novel biomarkers and phenotype profiles to further advance personalized clinical management is also progressing.[12] This raises an important question: should the COPD patient with comorbidities be considered a distinct phenotype from those currently recognized?

Many challenges lie ahead. A shift from fragmented care models to integrated clinical pathways is essential, while shared management between respiratory medicine, emergency medicine, internal medicine, primary care, nursing, physiotherapy, and pharmacies must become the rule rather than the exception. Achieving this

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goal will require not only the clinical tools discussed above, but also structural, technological, and organizational reforms, such as the creation of multidisciplinary units specifically dedicated to the management of complex COPD cases, similar to the cardiorenal-metabolic units established for patients with chronic heart failure, renal dysfunction, and polypharmacy. Looking to the future, key steps include incorporating quality indicators focused on comorbidity management, implementing telemonitoring, and using biomarkers and clinical scales to deliver precision medicine (currently involving NT-proBNP, eosinophil counts, frailty indices, and prognostic scores).

Ultimately, COPD is far more than a respiratory disease. Its effective management must extend beyond the lungs, and all professionals responsible for complex chronic patients must contribute their expertise. Initiatives like the CLAVE study and intersocietal consensus documents are crucial steps toward achieving a more coordinated, realistic, and patient-centered model of care for COPD patients with comorbidities. The future of COPD lies not “only in the lungs”, but at the heart of a comprehensive, multiprofessional care system capable of recognizing and addressing the patient with COPD patient as “a whole”.

Conflict of interest

The authors declare that they have no conflicts of interest.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at doi:10.1016/j.opresp.2025.100520.

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Maria Belén Alonso Ortiz [a,*], Javier de Miguel Díez [b]
[a] *Coordinator of the FEMI COPD Working Group, Internal Medicine Department, Hospital Universitario de Gran Canaria Doctor Negrin, Surgical and Medical Sciences Department, Universidad de Las Palmas de Gran Canaria, Spain*
[b] *SEPAR COPD Working Group, Department of Pulmonology, Hospital General Universitario Gregorio Marañón, Gregorio Marañón Health Research Institute (IiSGM), Universidad Complutense de Madrid, Spain*

* Corresponding author.
E-mail address: belen.alonso@ulpgc.es (M. Belén Alonso Ortiz).