



## Editorial

## What's new in GOLD 2017?☆

## ¿Qué hay de nuevo en la GOLD 2017?

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Every 5 years, the Global Initiative for Chronic Obstructive Lung Disease (GOLD) publishes a major revision of their global strategy for the diagnosis, treatment and prevention of COPD. The latest revision undertaken in 2011 introduced the ABCD multidimensional evaluation. This was a more comprehensive approach to the disease that considered not only airflow limitation determined by spirometry, but also the impact of symptoms, while underlining the importance of preventing exacerbations. The recently published strategy update<sup>1</sup> incorporates several significant changes compared to previous editions, and focuses on a new concept of COPD.

It is also interesting to see that SEPAR member, Dr Álvaro Agustí, Director of the Respiratory Institute at Hospital Clinic in Barcelona, was appointed Chair of the GOLD Board of Directors in September 2016.

With this article, we hope to provide a structured illustration of the most important changes that appear in the new GOLD 2017.<sup>2</sup>

1. Definition and overview: A new definition of the disease is given, underlining the importance of symptoms and the fact that alveolar involvement is not always associated with airway involvement. "Inflammatory response" has also been deleted from the definition, although it is mentioned as a pathophysiological factor. New information is included in this chapter on the pathophysiology and natural history of the disease. The description of abnormal lung development featured in previous editions has been expanded in the new revision, and the different trajectories of lung function over time, expressed as FEV<sub>1</sub>, leading to the development of COPD, are described. Other factors discussed include exposure to inhaled toxins, host factors, such as genetic abnormalities, that predispose to development of the disease, and abnormal lung development (during gestation or childhood). The possibility that a patient may have COPD without showing accelerated decline in lung function has been accepted.

2. Diagnosis and initial evaluation: The current version maintains the ABCD schematic, but spirometric assessment has been

separated from symptoms evaluation. The new proposal is that ABCD groups should be derived exclusively from patient symptoms and history of exacerbations. Existing cut-off points for mMRC and CAT have been maintained, even though certain studies failed to show a close concordance between CAT<sub>≥10</sub> and mMRC<sub>≥2</sub> in the evaluation of the clinical impact or for predicting exacerbations, depression and mortality.<sup>3,4</sup> This approach aims to avoid the imbalance that previously arose between FEV<sub>1</sub> and exacerbations, without straying too far from previous versions of the document and maintaining the simplicity that clinicians need in their daily practice. The recommendations state that spirometry still has an important role in diagnosis and prognosis and for some therapeutic considerations (for example, wherever a discrepancy is perceived between spirometry results and the level of symptoms), for considering alternative diagnoses, or for indicating non-pharmacologic treatment, such as interventional procedures. Finally, this new approach will probably mean that fewer patients are assigned to groups C and D. Its ability to predict mortality and other outcomes must be validated.

3. Evidence supporting prevention and treatment: The various pharmacologic therapies and their combinations in the treatment of stable disease and the prevention of future exacerbations have been extensively reevaluated and updated. Sections on emphysema interventions, respiratory rehabilitation, long-term home oxygen therapy, non-invasive mechanical ventilation in stable disease, self-management, and palliative and end-of-life care have been expanded. The need for regular evaluation of inhalation techniques, which should be performed in all patients, has been added. Emphasis is given to checking inhalation techniques along with therapeutic adherence before concluding that a medication is ineffective.

4. Management of stable COPD: Various recommendations for the pharmacologic and non-pharmacologic treatment of COPD are presented. The focus is on more personalized treatment, directed mainly at controlling symptoms and preventing exacerbations.

As in the previous update, pharmacologic treatment follows the ABCD group schematic. In this new version, however, the approach is more dynamic, since it also includes treatment escalation and de-escalation depending on response. Thus, an initial regimen is recommended and subsequently modified, depending on persistence or improvement of symptoms or exacerbations.

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For the non-exacerbator groups (A and B), no major changes have been introduced with respect to the previous version. However, in view of studies performed using the GOLD 2011 classification, more importance has been given to the fact that patients in category B have a higher rate of comorbidities that may affect their symptoms and prognosis, and this must be taken into account during their evaluation.<sup>5</sup> Greater differences can be found in groups C and D, as bronchodilators are recommended for the prevention of exacerbations, either in monotherapy with anticholinergics in group C patients, or in a combination of beta2-adrenergics and anticholinergics in group D. The management of patients in group D is more complicated, and more choices are offered. Thus, the possibility of targeting treatment according to the results of a laboratory parameter is proposed (starting LABA-ICS in patients with peripheral eosinophilia). Roflumilast or azithromycin may be considered in patients receiving triple therapy who continue to present exacerbations.

With regard to non-pharmacologic treatment, more structured recommendations are presented in the more comprehensible format of algorithms and tables. Much more information is offered on self-management programs, dyspnea management, energy conservation and stress management in more symptomatic patients, non-invasive ventilation (a larger body of scientific evidence is presented), palliative care, and particularly, endoscopic and surgical volume reduction in patients with homogeneous or heterogeneous emphysema and hyperinflation, and an excellent new algorithm for the management of advanced COPD is provided.

5. Management of exacerbations: Exacerbations (definition, diagnosis and treatment) have been extensively reviewed. One novel aspect is the presentation of detailed criteria for hospital discharge and follow-up, and the inclusion of an integrated plan for that period that aims at reducing as far as possible the risk of readmission within 1 month following discharge.

6. COPD and comorbidities: Cardiovascular disease, osteoporosis, anxiety and depression, lung cancer, infections, and metabolic syndrome and diabetes, and the prevalence of these diseases are

reviewed in more detail, and management of other comorbidities in COPD patients and COPD as part of multimorbidity are discussed. Another novel aspect is the emphasis on the need to simplify treatment and minimize polypharmacy in multimorbid patients.

In conclusion, this new revision of the GOLD strategy introduces significant changes in the concept of COPD, expands previously underdeveloped areas, and attempts to improve the multidimensional ABCD strategy to provide a more streamlined diagnostic and therapeutic approach. This strategy must be validated, and some questions remain unanswered due to the lack of scientific evidence and the continued use of a horizontal symptomatic axis that uses tools with unbalanced cut-off points. With its new algorithms and tables with levels of evidence that facilitate comprehension, this review represents an improvement over previous versions. The intention of this new clinical strategy is that it can be used in any clinical setting anywhere in the world. It is an attempt to shift the management of COPD towards a more personalized model, more closely adapted to patients' needs.

## References

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