

GOLD COPD categories are not fit for purpose in primary care

Although we welcome the concept that chronic obstructive pulmonary disease (COPD) management requires us to consider more than lung function, the new Global initiative for chronic Obstructive Lung Disease (GOLD) severity assessment system that produces categories A, B, C, and D is problematic.^{1,2}

For a new severity system to work, it is conventional to consider whether the categories are valid, and ask: do they have face validity and content validity? They should be reliable and consistent in different populations. The system to produce the categories should be feasible and acceptable to those for whom they are designed. The GOLD categories seem to fail to meet these aspects.

For example, the GOLD guideline indicates the primacy of smoking as a cause and future risk in terms of disease progression and mortality, but smoking is not included in the assessment of future risk.² Exacerbation frequency is a strong predictor of future exacerbations,^{3,4} but forced expiratory volume in 1s is a weak predictor. The categories, when produced by different methods (eg, using COPD assessment test or modified medical research council dyspnoea scale), produce very different groups, and therefore the categories are not internally consistent.⁴

Category B is described as low risk and high symptoms, whereas category C represents low symptoms and high risk. However, the two studies on relation between the risk categories and future exacerbations provide conflicting results, but indicate that there are high risks in group B.^{4,5} Because management recommendations are based on this risk assessment, they could produce inappropriate advice. For example,

inhaled steroids, known to reduce exacerbations, are not recommended for category B, even though group B has a high risk of severe exacerbations.

We believe that these categories are too complex to be used in primary care, where most clinical interactions with COPD patients occur.

The highly respected GOLD committee has produced these recommendations as a key element in an evidence-based strategy document without scientific derivation or validation. The failure to involve the wider clinical community in their production has led to a flawed system. As members of the International Primary Care Respiratory Group Research Network and Board, we feel that the current GOLD categories are not fit for purpose and should not be used in primary care.

We suggest that COPD severity assessment should take into account a range of items such as spirometry, smoking, exacerbations, health status, and comorbidities; this could be done using multi-component indices such as Body mass index, airflow Obstruction, Dyspnoea, and Exercise capacity (BODE), Age, Dyspnoea and airflow Obstruction (ADO), or the Dyspnoea, Obstruction, Smoking, Exacerbation index (DOSE). Management should follow an evidence-based algorithm involving smoking cessation, pulmonary rehabilitation, and drug treatment.

We urge that any new treatment algorithm aimed at primary care clinicians fully involves members of that community in its production, and is piloted and evaluated rigorously in primary care settings before dissemination.

All authors contributed equally. RJ drafted the letter with edits and contributions from all authors. We declare that we have no conflicts of interest.

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- 2 GOLD. Global Strategy for Diagnosis, Management, and Prevention of COPD. http://www.goldcopd.org/uploads/users/files/GOLD_Report_2013.pdf (accessed Feb 12, 2013).
- 3 Hurst JR, Vestbo J, Anzueto A, et al. Susceptibility to exacerbation in chronic obstructive pulmonary disease. *N Engl J Med* 2010; **263**: 1128–38.
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Authors' reply

We thank Jones and colleagues for their interest in our article.¹ Because of the broad scope of this correspondence, we have invited Peter Lange² and co-authors of both reports who are members of the GOLD scientific committee to participate in this response. Jones and colleagues comment that the GOLD combined assessment is flawed, with concerns surrounding validity. The new GOLD assessment replaces a system based solely on post-bronchodilator forced expiratory volume in 1s (FEV₁). Chronic Obstructive Pulmonary Disease (COPD) is characterised by symptoms that have a significant effect on daily life and exacerbations that negatively affect exercise capacity³ and health status.⁴ Repeated exacerbations lead to progressive loss of lung function⁵ and increased risk of myocardial infarction,⁶ therefore a stratification scheme based on FEV₁, symptoms, and exacerbations has both face and content validity.

