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LETTER TO THE EDITOR

GOLD COPD stage I is not associated with increased risk of death

Hoesein *et al.*,¹ in a comprehensive and balanced review of the literature, addressed the question whether the diagnosis of airways obstruction should be based on an FEV₁/FVC ratio < 0.70 (fixed ratio), or below the lower limit of normal (LLN, commonly the 5th centile). A clinical diagnosis is commonly confirmed by combining clinical information with test results, presented with their lower and upper limits of normal. The GOLD committee deviated from the time-honoured and scientifically based practise by replacing the LLN with a fixed FEV₁/FVC ratio,² with no evidence that this was a valid way of diagnosing airways obstruction, aka chronic obstructive lung disease (COPD). Many studies have since unsuccessfully tried to find evidence that there may be any merit in using the fixed ratio for diagnosing COPD.

Hoesein *et al.*'s¹ final conclusion hinges on one publication³; it allegedly showed that subjects with an FEV₁/FVC ratio < 0.70 but > LLN had an increased risk of premature death and hospitalisation for COPD. However, the adjusted hazard ratio for death was misquoted: it was not elevated (1.1, confidence interval 0.96–1.3, see table 3 in³). An increased hazards ratio for hospitalisation was reported, but the authors conceded that 'the measure of COPD-related hospitalisations was too inclusive',⁴ so this finding also fails under scrutiny. Regardless, it is circular reasoning to postulate that an FEV₁/FVC ratio < 0.70 represents COPD, and subsequently consider any death or hospitalisation in subjects with such a ratio as confirming the diagnosis of COPD. Subjects with FEV₁/FVC < LLN, but not non-smokers with FEV₁/FVC < 0.70 but > LLN, have an increased risk of all-cause death.^{5,6} GOLD stage I in asymptomatic subjects is not associated with dyspnoea, accelerated decline in FEV₁, respiratory care utilisation or quality of life scores compared with a reference group.⁷ It is therefore safe to assume that GOLD COPD stage I in the above studies^{3,5,6} represented healthy subjects with FEV₁/FVC > LLN.

All the evidence, including that from all longitudinal studies, is therefore that GOLD COPD stage I does not represent disease. Therefore the 'twilight zone' (FEV₁/FVC < 0.70 but > LLN) deserves no attention. Apart from smoking cessation, for which all smokers should get all the help available regardless of pulmonary function, there is no intervention that will favourably affect their lung condition. As the authors and Bridevaux *et al.*⁷ suggest, in

establishing a diagnosis one should put more emphasis on prior probability of disease, clinical signs and symptoms.

Conflict of interest statement

Dr. Furberg and myself have no conflict of interest to declare.

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