

**Statement of Interest:** None declared.

## REFERENCES

- 1 Jaïs X, Olsson KM, Barbera JA, *et al.* Pregnancy outcomes in pulmonary arterial hypertension in the modern management era. *Eur Respir J* 2012; 40: 881–885.
- 2 Bendayan D, Hod M, Oron G, *et al.* Pregnancy outcome in patients with pulmonary arterial hypertension receiving prostacyclin therapy. *Obstet Gynecol* 2005; 106: 1206–1210.

- 3 Bonnin M, Mercier FJ, Sitbon O, *et al.* Severe pulmonary hypertension during pregnancy: mode of delivery and anesthetic management of 15 consecutive cases. *Anesthesiology* 2005; 102: 1133–1137.
- 4 Bédard E, Dimopoulos K, Gatzoulis MA. Has there been any progress made on pregnancy outcomes among women with pulmonary arterial hypertension? *Eur Heart J* 2009; 30: 256–265.
- 5 Kiely DG, Condliffe R, Webster V, *et al.* Improved survival in pregnancy and pulmonary hypertension using a multiprofessional approach. *BJOG* 2010; 117: 565–574.

DOI: 10.1183/09031936.00047512

# Chronic bronchitis: an objective diagnosis of exclusion

*To the Editors:*

In their recent, very interesting study, MONTES DE OCA *et al.* [1] suggested that chronic bronchitis is associated with increased morbidity and poorer general health status in both chronic obstructive pulmonary disease (COPD) and non-COPD subjects. Although the term “chronic bronchitis phenotype” is mentioned in the title, we feel that the differentiation between the phenotype and the actual diagnosis should be highlighted. Chronic bronchitis is a diagnosis of exclusion, while its phenotype could include patients with congestive heart failure (CHF), asthma, tuberculosis, lung cancer, bronchiectasis or other respiratory diseases. All these possible diagnoses were insufficiently investigated in this study. As a result, the overwhelming majority of non-COPD subjects with chronic bronchitis phenotype presented in this study are expected to match one of these diagnoses, with the well-established levels of morbidity and quality of life burden. We believe that the CHF diagnosis should have at least been inquired from all the subjects. In the COPD group, the same confounding factor should have been taken into account.

However, we believe that the prevalence of chronic bronchitis phenotype in COPD patients is underestimated in this study. First, we would like to note the fact that a forced expiratory volume in 1 s/forced vital capacity ratio of 0.7 is a cut point that lacks a physiological background. As a result, values near 0.7 can neither diagnose nor exclude COPD in the ignorance of the clinical context, especially in the elderly [2]. The significantly lower percentages of respiratory symptoms and of respiratory prescriptions in the nonbronchitic subgroup of COPD stage I patients also suggests a hyperdiagnosis of COPD in subjects without clinical disease. Moreover, the retrospective, subjective questionnaire in clinically stable patients could be misleading, since older people would more easily underestimate symptoms that are “expected for their age”, whereas younger patients may overestimate symptoms that restrict their daily activities. This is compatible with the observation that COPD patients with chronic bronchitis show a general trend toward lower age and worse subjective symptoms, which cannot be explained otherwise. Age stratification could be enlightening.

**Alexandros G. Mathioudakis\***, **Victoria Chatzimavridou-Grigoriadou<sup>#</sup>**, **Efstathia Evangelopoulou<sup>#</sup>** and **Georgios A. Mathioudakis<sup>#</sup>**

\*Medical Department, Macclesfield District General Hospital, National Health Service, Macclesfield, UK. <sup>#</sup>Respiratory Dept, General Hospital of Nikaia “St. Panteleimon”, Piraeus, Greece.

**Correspondence:** A.G. Mathioudakis, Medical Dept, Macclesfield District General Hospital, National Health Service, Victoria Road, Macclesfield, SK10 3BL, UK. E-mail: a.mathioudakis@nhs.net

**Statement of Interest:** None declared.

## REFERENCES

- 1 Montes de Oca M, Halbert RJ, Lopez MV, *et al.* The chronic bronchitis phenotype in subjects with and without COPD: the PLATINO study. *Eur Respir J* 2012; 40: 28–36.
- 2 Vaz Fragoso CA, Concato J, McAvay G, *et al.* Chronic obstructive pulmonary disease in older persons: a comparison of two spirometric definitions. *Respir Med* 2010; 104: 1189–1196.

DOI: 10.1183/09031936.00107712

*From the authors:*

We would like to thank A.G. Mathioudakis and co-workers for their interest and comments regarding our recently published article in the July issue of the *European Respiratory Journal* [1].

A.G. Mathioudakis and co-workers raise a concern regarding the term of “chronic bronchitis phenotype” and the actual diagnosis. They also comment that the phenotype could include patients with tuberculosis, lung cancer, asthma, bronchiectasis and heart failure, and that these diagnoses were not sufficiently investigated in our study. We agree with the position that the phenotype includes patients with other conditions and, in this way, the term was addressed in our study [1]. The self-reported comorbidity (asthma, tuberculosis and lung cancer) of the subjects with