How Are You?

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Patients with chronic obstructive pulmonary disease are plagued by the occurrence of acute exacerbations which unfavourably influence their quality of life and survival. Hospital admissions in this context also represent a major financial burden for the health care system [1]. Hence, an interest in identifying predictive factors of hospitalization is warranted with this disease [2].

A variety of potential predictive factors have been studied which can be grouped in three categories. The first and most straightforward category comprises the demographic and functional variables. Low FEV₁, a known predictive factor of survival, was identified as an independent risk factor for hospitalizations in some studies [3–5], but not in others [6, 7]. With regard to arterial blood gases, an elevated PaCO₂ was found to be a predictive factor of hospital admissions in some [6, 7] but not in all studies [8]. Elevated pulmonary arterial pressure represents an independent risk factor, but it cannot be easily measured in every patient [7]. Similar conflicting conclusions were published for older age [7, 9], low body mass index [7, 8], and comorbid conditions [4, 8, 10].

A second category of predictive factors can be defined as medical care-related variables. Repeated previous hospitalizations were found to predict further admissions in several studies [3–6, 10]. Previous admissions may represent a global index of severity, but may also represent a ‘confounder by indication’ in the sense that it is perceived as signalling poor prognosis and induces itself further

admissions [4]. Being managed by a pulmonologist [4], the use of inhaled or oral corticosteroids [8, 10], the use of anticholinergics [4], and of long-term oxygen therapy [5, 7, 10] were all found to be risk factors for hospitalizations. These observations merely indicate that hospital admissions occur in severe chronic obstructive pulmonary disease in spite of appropriate management. Thus, these variables are of little use to identify high-risk patients for specific interventions.

The third category relates to lifestyle and quality of life. A low quality of life or health status as assessed by standardized questionnaires was found to predict hospital admissions in a series of studies [5, 6, 9, 11, 12]. Among those patients with poor health status, anxiety was significantly associated with readmissions [5]. Lifestyle has to be considered as well: patients reporting a low or very low level of habitual physical activity are at high risk of hospital admission [4, 13]. In the current issue of *Respiration*, Benzo et al. [14] confirm and extend these previous findings in a cohort of patients randomized to the medical arm of the National Emphysema Treatment Trial (NETT) [15]. Indeed, they established that low levels of self-reported physical activity and of health status, as well as the presence of self-reported anxiety, were predicting factors for hospital admissions in these patients with severe emphysema, whereas FEV₁ and the BODE index were not. Thus, as shown by several previous authors, the patient’s lifestyle, emotions and perception of health are

better predictors of hospitalization than the traditional functional tests. Two points deserve particular attention in this study. Considering exercise-related variables, the predictor of hospitalizations was the self-reported habitual physical activity, but not the exercise capacity as assessed by the 6-min walk test. This appears as a message for respiratory rehabilitation, which should aim at enhancing not only exercise capacity but also exercise activ-

ity that is actually accomplished in daily life. Considering methodology, the present study simplified it greatly by assessing physical activity, health status and anxiety in three questions, one for each item. This validated approach to predict the risk of hospitalization is easily accessible to the clinician. In fact, it can hardly be made simpler, except perhaps by a sincere 'How are you?' and by truly listening to the answer.

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