

Guidelines versus clinical practice in the treatment of chronic obstructive pulmonary disease

To the Editor:

Chronic obstructive pulmonary disease (COPD) is a very prevalent disease in developed countries. It is estimated that between 7–10% of the adult population may be affected [1]. In recent years, many scientific societies have published guidelines for the treatment of these patients, one of the most ambitious of which is the Global Initiative for Chronic Obstructive Lung Disease (GOLD) [2]. However, management patterns of the disease in both primary care and specialised settings differ from those proposed by experts. In a recent issue of the *European Respiratory Journal*, ROCHE *et al.* [3] presented data on the treatment of COPD by respiratory physicians in France. Their results showed that 41.6% of patients remained untreated. This figure contrasts with the 12% [4] and 5% [5] of patients untreated in two different large surveys of primary care in Spain. Similarly, in a population-based study, only 22% of patients identified as having COPD in the general population had been diagnosed previously, but among those diagnosed, only 12% were not receiving any treatment for their respiratory disease [1]. These results highlight important differences in COPD management between the two countries.

Another interesting aspect of their study was the demonstration that treated patients received a mean of 2.6 drugs [3]. In a recent study on moderate-to-severe COPD patients treated by respiratory physicians, we observed that 44% of patients were receiving at least three different drugs for their respiratory disease [6]. Interestingly, an increased number of drugs prescribed was associated with more severe impairment of health status, as measured by the St George's respiratory questionnaire.

Impairment of the forced expiratory volume in one second (FEV₁) or baseline dyspnoea was associated

with increased prescription of respiratory drugs, with the exception of anticholinergics [3]. In our survey on primary care, impairment in FEV₁ was again significantly associated with increased drug prescription, including anticholinergics. However, other factors, such as age, male sex and chronic mucus hypersecretion, explained part of the variability in the prescription of different therapeutic groups [4]. Impairment of FEV₁ or baseline dyspnoea was associated with increased prescription of drugs in moderate-to-severe COPD patients managed by respiratory physicians. However, in our study, comorbidity was also significantly associated with increasing treatment in this population [6].

Management of patients with COPD may differ in different countries and over time. A comparison of different studies providing data on COPD management is presented in table 1. It is interesting to observe the large differences in the prescription of different drugs; for example, theophylline use ranges from 10–45% and inhaled corticosteroids from 26–76%.

Finally, patterns of chronic obstructive pulmonary disease management that adhered more strictly to guidelines were observed in a cross-sectional study. This included performance of lung function tests in the follow-up of patients associated with a lower number of events, such as acute exacerbations or admissions [5], thereby emphasising the importance of implementation of guidelines. New strategies must be designed to diffuse and implement the guidelines among both primary care physicians and respiratory specialists.

M. Miravittles

Servei de Pneumologia, Hospital General Universitari Vall d'Hebron, Barcelona, Spain.

Table 1. – Some studies with data regarding ambulatory treatment of chronic obstructive pulmonary disease (COPD)

First author [ref. no]	Year	Setting	Subjects	FEV ₁ %	β ₂ -agonists	AC	ICS	Theo.
JACKEVICIUS [7]	1997	Teaching hospital	133	NR	46	25	26	10
JONES [8]	1997	Multicentre hospitals	283	45.1	NR	NR	66	45
MIRAVITLLES [4]	1999	Multicentre GPs	1001	47	71	23	50	53
VAN ANDEL [#] [9]	1999	Multicentre hospitals	676	36.4	77	54	41	29
MIRAVITLLES [5]	1999	Multicentre GPs	2414	56.4	56	27	47	43
ROCHE [3]	2001	Chest physicians	631	53.6	79	56	76	30
MIRAVITLLES [6]	2002	Chest physicians	441	36	65	87	69	41

FEV₁: forced expiratory volume in one second; AC: anticholinergics; ICS: inhaled corticosteroids; Theo.: theophyllines; GPs: general practitioners; NR: not reported. [#]: data refers to 1995.

References

1. Sobradillo V, Miravittles M, Gabriel R, *et al*. Geographical variations in prevalence and under-diagnosis of COPD. Results of the IBERPOC multicentre epidemiological study. *Chest* 2000; 118: 981–989.
2. Pauwels RA, Buist AS, Calverley PMA, Jenkins CR, Hurd SS. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. NHLBI/WHO global initiative for chronic obstructive lung disease (GOLD) workshop summary. *Am J Respir Crit Care Med* 2001; 163: 1256–1276.
3. Roche N, Lepage T, Bourcereau J, Terrioux P. Guidelines *versus* clinical practice in the treatment of chronic obstructive pulmonary disease. *Eur Respir J* 2001; 18: 903–908.
4. Miravittles M, Mayordomo C, Artés M, Sánchez-Agudo L, Nicolau F, Segú JL on Behalf of the EOLO Group. Treatment of chronic obstructive pulmonary disease and its exacerbations in General Practice. *Respir Med* 1999; 93: 173–179.
5. Miravittles M, Murio C, Guerrero T, Segú JL. Tratamiento de la bronquitis crónica y la EPOC en Atención Primaria. *Arch Bronconeumol* 1999; 35: 173–178.
6. Miravittles M, Alvarez-Sala JL, Lamarca R, *et al*. Treatment and quality of life in patients with chronic obstructive pulmonary disease. *Qual Life Res* 2002 (in press).
7. Jackevicius C, Joyce DP, Kesten S, Chapman KR. Prehospitalization inhaled corticosteroid use in patients with COPD and asthma. *Chest* 1997; 111: 296–302.
8. Jones PW, Bosh TK, in association with an international study group. Quality of life changes in COPD patients treated with salmeterol. *Am J Respir Crit Care Med* 1997; 155: 1283–1289.
9. Van Andel AE, Reisner C, Menjoge SS, Witek TJ. Analysis of inhaled corticosteroid and oral theophylline use among patients with stable COPD from 1987 to 1995. *Chest* 1999; 115: 703–707.