The potential for patient-led COPD admission avoidance schemes

To the Editors:

Recent guidance on intermediate care for chronic obstructive pulmonary disease (COPD) highlights the invaluable role of "early assisted discharge" and "hospital at home" in improving patient care and reducing length of hospitalisation for exacerbations [1]. We would like to draw on our novel local experience to suggest a potentially useful addition to such services: namely, a largely patient-triggered "in-reach" service for selected COPD patients from the community.

Southampton has been identified as a COPD "hotspot" in the southern part of the UK [2]. Local COPD management is now largely coordinated through a multidisciplinary service called The Respiratory Centre (TRC) at Southampton General Hospital (Southampton). This service offers early assisted discharge, post-discharge reviews, follow-up for chronic management and urgent review of exacerbating COPD patients. Urgent review can be accessed directly by COPD patients known to TRC as well as general practitioners (GP). A specialist nurse, physiotherapist and respiratory consultant usually see patients within 24 h, between 09:00–17:00 h, Monday to Friday. We recently reviewed the use and efficacy of this novel urgent referral service and present relevant findings below.

Our review focused on all COPD patients using the TRC urgent referral system in a 12-month period between September 1, 2004 and August 31, 2005. In total, 82 individuals used the facility during that period. Data were obtained from the local patient database.

Most patients who used the service "self-referred" (67%), although some were referred by GP (21%) or community respiratory team (11%). There was a slight male predominance amongst users (59%), who had a mean age of 70.2 yrs. It was possible to discharge most patients (94%) after review, with escalation of therapy in 68% of cases. Community support was needed for 12% of discharged patients. Of the urgently referred patients, 6% were admitted following review. Amongst patients discharged after review, 11% were subsequently admitted during the "index exacerbation" (*i.e.* failed discharge). During the 12 months following initial review, 52% of subjects went on to have further urgent reviews, while 23% of subjects had a COPD-related hospitalisation during that period.

Patients were further categorised as having "mild", "moderate", "severe" and "very severe" COPD, using Global Initiative for Chronic Obstructive Lung Disease (GOLD) criteria (table 1) [3]. Most patients (79%) had severe or very severe disease, with worse indices for lung function, body mass index, baseline therapy and mortality. Amongst those needing admission post review, most (75%) were severe or very severe. Subsequent urgent referrals (83%) and hospitalisations (93%) over the following year occurred mostly in severe or very severe patients. However, whilst 65% of the

TABLE 1 Characteristics of chronic obstructive pulmonary disease (COPD) patients according to disease category

	Mild	Moderate	Severe	Very severe
Subjects n	1	12	24	26
Age yrs	70.0±0.0	70.8±11.0	72.4±11.8	68.6±11.7
Mean BMI	22.0±0.0	31.1±9.1	26.9±6.1	23.9±5.3
Mean FEV₁ % pred	96.0±0.0	56.6±8.2	40.9±4.6	23.5±4.4
Admitted into hospital	0 (0)	1 (8.3)	2 (8.3)	1 (3.8)
Received new acute treatment	0 (0)	4 (33.3)	17 (70.8)	21 (80.8)
Hospital admissions in following 12 months	0 (0)	1 (8.3)	5 (20.8)	9 (34.6)
Urgent referral within following 12 months	1 (100)	5 (41.7)	12 (50.0)	17 (65.4)
TRC attendance in following 12 months	3.0±0.0	3.3±2.6	4.0±3.1	5.4±3.2
Death within following 12 months	0 (0)	3 (25)	1 (4.2)	7 (26.9)

Data are presented as mean±sd or n (%). A total of 63 (77%) patients had "stable" lung function (within the previous 12 months of index referral) and could thus be categorised according to severity. COPD severity was defined using forced expiratory volume in one second (FEV₁) % predicted, in the setting of FEV₁/forced vital capacity ratio <70%, as per the following Global Initiative for Chronic Obstructive Lung Disease (GOLD) criteria. Mild: FEV₁ >80% pred; moderate: FEV₁ 50–80% pred; severe: FEV₁ 30–50% pred; very severe: FEV₁ ≤30% pred; BMI: body mass index; TRC: The Respiratory Centre.

very severe group had further urgent reviews in the next year, only 35% of them needed hospitalisation.

We suggest that the potentially patient-driven in-reach system of COPD care for selected patients in areas of high COPD burden highlighted within this letter could be particularly useful for severe patients who may otherwise place greatest strain on traditional models of COPD care. We therefore urge further well-designed research into this tool, which can assess its impact on hospital admission rates and quality of life.

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STATEMENT OF INTEREST

None declared.

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Relationship between depression and exacerbations in COPD: a response

To the Editors:

A well-conducted prospective study was published in a recent issue of the *European Respiratory Journal* (ERJ), which assessed the relationship between depressive symptoms, exacerbation frequency (as defined by the presence of two symptoms on 2 consecutive days), systemic inflammation, and social factors among 169 stable chronic obstructive pulmonary disease (COPD) patients [1]. QUINT *et al.* [1] found that patients with frequent exacerbations exhibited significantly more depressive symptoms than those with infrequent exacerbations.

The research of QUINT *et al.* [1] is unique because previous work [2] has mostly focused on cross-sectional links between depressive symptoms and admission for an exacerbation or mortality. As such, the prospective design used by QUINT *et al.* [1] is an important contribution to a field that still needs to be developed. However, the paper is limited by the fact that the authors did not assess anxiety symptoms or anxiety disorders. This is surprising given the fact that anxiety symptoms and anxiety disorders (*i.e.* clinical levels of anxiety) have been shown to be highly prevalent (up to 50%) and highly comorbid with depression (14–26%) in patients with COPD [3–5]. We, as well as others, have previously reported that anxiety disorders (*e.g.* generalised anxiety disorder, phobias) were even more prevalent than mood disorders (*e.g.* major depressive disorder, dysthymia) in patients with COPD (46–50% *versus* 17–38%, respectively) [3, 4]. The assessment of anxiety in addition to depression is important from both a methodological and a clinical standpoint because of the comorbidity issue, and because it is unclear whether the results of the study by QUINT *et al.* [1] are due to depression or nonassessed anxiety. For example, QUINT *et al.* [1] postulate that patients with elevated depression scores may report greater levels of breathlessness or perceive symptom changes more readily. However, breathlessness and increased symptom awareness (or hypervigilance) are actually hallmarks of anxiety rather than depression [5]. QUINT *et al.* [1] quite rightly point out that the Center for Epidemiologic Studies Depression Scale questionnaire has benefits over other questionnaires as it has less overlap with anxiety symptoms. However, had QUINT *et al.* [1] used a questionnaire like the Hospital Anxiety and Depression Scale

or a brief psychiatric interview like the Primary Care Evaluation of Mental Disorders, this issue of anxiety *versus* depression would have been negated.

While we agree with QUINT *et al.* [1] that depression and depressive symptoms are important factors in patients with COPD, and that greater efforts are needed to identify and treat patients with such disorders, we also believe that failing to assess anxiety in addition to depression means that their results should be interpreted with caution.

As highlighted by WAMBOLDT [6], future research needs to consider differential clinical phenotypes and outcomes of chronic obstructive pulmonary disease patients with depression and/or anxiety compared to patients without either psychiatric disorder. It is essential that studies continue to evaluate the impact of depression and anxiety on chronic obstructive pulmonary disease patients so that appropriate treatments can be developed.

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STATEMENT OF INTEREST

None declared.

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