Table 1 Clinical activities performed by lung cancer nurse specialist

Activities	MDTs where the activity existed	Proportion involving nurses
Routine MDT follow-up	87/115 (76%)	82 (94%)
Diagnosis/results at a general clinic	84/113 (74%)	78 (93%)
Dedicated diagnosis/result clinic	60/110 (55%)	55 (92%)
Ward visits/review	121/126 (96%)	111 (92%)
Managing investigations	93/117 (79%)	84 (90%)
Stock taking clinic	42/103 (41%)	38 (90%)
Nurse led telephone review	90/118 (76%)	81 (90%)
Home visits	60/106 (57%)	53 (88%)
New patient clinic	84/117 (72%)	74 (88%)
Palliative care	111/122 (91%)	97 (87%)
In treatment reviews	93/117 (79%)	79 (85%)
Support groups	64/120 (53%)	53 (83%)
Rapid referral clinic	61/109 (56%)	48 (79 %)
Nurse led follow-up	34/102 (33%)	27 (79%)
Chemotherapy assessments	63/107 (59%)	46 (73%)
Breathlessness clinics	27/102 (26%)	19 (70%)
Pre assessment clinic	11/93 (12%)	5 (45 %)
Chemotherapy administration	33/99 (33%)	13 (39%)

MDT, multidisciplinary team.

of the Scottish Lung Cancer Nurse Interest Group Committee, was sent to all 250 lung cancer nurses identified through the National Lung Cancer Nurses Forum and the Roy Castle database: 212 responded (85%).

Of the 130 lung cancer units represented by this survey in 2005, 15 (12 %) had three or more nurses, 47 (36%) two nurses and the remaining 68 employed one or less whole time equivalent (WTE) nurse. Of those who worked in isolation, only 18 (26%) had formal arrangements for holiday or sickness cover. Although the median number of new cases seen per WTE nurse was 142 per year (interquartile range 117–200), nurses in 49 (38%) units admitted that they had insufficient capacity to enable all referrals to be seen. Only 96 (45%) had any secretarial support (median 5 h per week).

The 125 nurses (66%) working in cancer units carried out more varied duties than those in cancer centres ($p<0.01$). Table 1 shows the most to the least frequent clinical activities and the degree of involvement by the specialist nurses. Of the non-clinical activities, nearly all (>90%) were involved in education, audit, service and personal development. However, only half were able to carry out research because of a lack of dedicated time and pressure of work. Approximately 50% had management responsibility for other colleagues, and a similar number spent time collecting clinical data for and coordinating the MDT meetings. For a number of nurses, this included populating clinical databases.

Following implementation of the UK National Cancer Plan in the wake of the Calman–Hine Report,[3] there has been a rapid expansion in services aimed at improving the care of lung cancer patients. As part of this, there has been an increase in the number of lung cancer nurses, from 130 in 2000[1] to 250 identified in the current study. The results of our survey show a wide variation in the duties and allocation of lung cancer nurse specialists within cancer services in the UK. Many nurses have a large workload, poorly structured job plans with inadequate secretarial support. Although most were involved in "front end" activities, their lack of involvement in the ongoing care of lung cancer patients post diagnosis was disappointing, especially since nurse led follow-up clinics[4] and the establishment of nurse run breathlessness clinics[5] have been shown to be effective means of improving the quality of life for lung cancer patients. Nevertheless, the survey did demonstrate the wide range of services that lung cancer specialist nurses can now provide and there is scope for rolling out these skills to more nurses in more MDTs, easing the burden on hard pressed medical staff. However, the current culture of the NHS makes it difficult for health care commissioners to sanction the appointment of new nurses unless this is linked to an improvement in the achievement of targets, which are not usually quality based. The development of a national job specification tailored to lung cancer patient's needs may help to improve this aspect of care for these patients, and would help commissioners to support this aspect of the Cancer Reform Strategy.

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*LB sadly died in July 2008.

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REFERENCES

1. **Moore S,** on behalf of the National Lung Cancer Forum for Nurses. A survey of nurse specialists working with patients with lung cancer. *Eur J Oncol Nurs* 2002;**6**:169–75.
2. **NICE**. *The diagnosis and treatment of lung cancer*. Clinical Guidance 24. London: NICE, 2005.
3. **Calman K,** Hine D. *A policy framework for commissioning cancer services. A report by the expert advisory group on cancer to the chief medical officers of England and Wales*. London: Department of Health, 1995.
4. **Moore S,** Corner J, Haviland J, *et al*. Nurse led follow up and conventional medical follow up in the management of patients with lung cancer: randomised trial. *BMJ* 2002;**325**:1145–51.
5. **Hately J,** Laurence V, Scott A, *et al*. Breathlessness clinics within specialist palliative care settings can improve the quality of life and functional capacity of patients with lung cancer. *Palliative Med* 2003;**17**:410–17.

GOLD stage 1 is crying wolf

Nine out of 10 people with GOLD stage 1 chronic obstructive pulmonary disease (COPD) do not have lung disease and are not at substantially increased risk of developing lung disease during the next decade. The SAPALDIA investigators recently described the outcomes after 11 years of follow-up of 519 adults with GOLD stage 1 COPD, comparing them with 6061 with normal spirometry.[1] More than one-third of these adults, both at the baseline and follow-up examinations, would have had normal spirometric results if the investigators had used the appropriate lower limit of the normal range for the ratio of the forced expiratory volume in 1 s/forced vital capacity (FEV_1/FVC) instead of a fixed 0.70,[2] and had taken the time to measure post-bronchodilator spirometry.[3] About half of those with GOLD stage 1 COPD at the baseline examination ($N = 224$) reported either a chronic cough, chronic phlegm, chronic bronchitis or dyspnoea. However, in adults with a normal FEV_1 (especially in never-smokers), these non-specific symptoms are usually not due to COPD. A chronic cough is often due to gastro-oesophageal reflux (often due to obesity) or asthma (not yet diagnosed by a doctor). Chronic phlegm is often due to rhinosinusitis with postnasal drainage. Dyspnoea with a normal FEV_1 is usually due to cardiac deconditioning, obesity or over-reporting, and sometimes is

caused by undiagnosed cardiovascular disease such as congestive heart failure.

I suspect that their slightly increased utilisation of respiratory care during the 12 months before the year 11 follow-up was due to asthma (diagnosed subsequent to their baseline visit), viral upper respiratory infections, hay fever or cardiovascular disease, and never due to a true COPD exacerbation. Their lung function simply could not have fallen enough during the 11 years (with a mean decline of 440 ml from a mean FEV_1 of 99% predicted) to have caused a COPD exacerbation. As with the 11-year follow-up of the Lung Health Study cohort of adult smokers with an FEV_1/FVC <0.70, fewer than 10% of those with a baseline FEV_1 above 80% predicted had developed a post-bronchodilator FEV_1 below 60% predicted.[4]

Smokers with normal or near-normal FEV_1 should be urged and helped to quit smoking, not given a diagnostic label of "COPD" which risks inappropriate treatments.[5] Other causes for their chronic cough, phlegm and dyspnoea should be sought.

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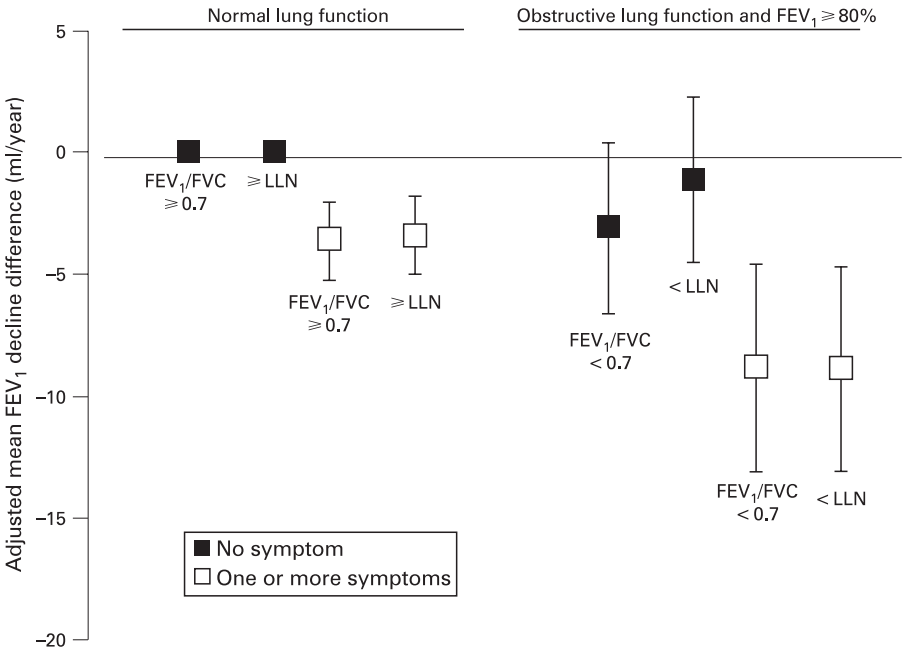

Figure 1 Difference in adjusted* decline in forced expiratory volume in 1 s (FEV_1; ml/year with 95% confidence interval) over 11 years in subjects with normal spirometry or mild obstruction, stratified at SAPALDIA 1 (1991) by modified GOLD† and symptom‡ categories or lower limit of normal (LLN) of FEV_1 to forced vital capacity (FEV_1/FVC) ratio.† *Adjusted for age, age squared, gender, baseline FEV_1, smoking status, lifetime smoking (packs/year), baseline body mass index, weight change, education level, nationality and study area (random effect). †Pre-bronchodilator spirometry. ‡One or more symptoms (report of chronic cough or phlegm or shortness of breath while walking). Normal lung function, no symptom = reference category.

REFERENCES

1. **Bridevaux PO,** Gerbase MW, Probst-Hensch NM, *et al*. Long-term decline in lung function, utilisation of care and quality of life in modified GOLD stage 1 COPD. *Thorax* 2008;**63**:768–74.
2. **Pellegrino R,** Brusasco V, Viegi G, *et al*. Definition of COPD: based on evidence or opinion? *Eur Respir J* 2008;**31**:681–2.
3. **Pérez-Padilla R,** Hallal PC, Vázquez-García JC, *et al* for the PLATINO group. Impact of bronchodilator use on the prevalence of COPD in population-based samples. *COPD* 2007;**4**:113–20.
4. **Anthonisen NR,** Connett JE, Murray RP. Smoking and lung function of Lung Health Study participants after 11 years. *Am J Respir Crit Care Med* 2002;**166**:675–9.
5. **Qaseem A,** Snow V, Shekelle P, *et al* for the Clinical Efficacy Assessment Subcommittee of the American College of Physicians. Diagnosis and management of stable COPD: a clinical practice guideline from the American College of Physicians. *Ann Intern Med* 2007;**147**:633–8.

Authors' reply

We would like to thank Dr Enright for his comments regarding our article.[1] He suggests that the fixed forced expiratory volume in 1 s/forced vital capacity (FEV_1/FVC) ratio as proposed by the GOLD guidelines largely misclassifies subjects in population studies. Many subjects labelled as mildly obstructive would have normal spirometry and thus had no chronic obstructive pulmonary disease (COPD) if the lower limit of normal (LLN) range for FEV_1/FVC was used instead of the fixed ratio (<0.70). This implies that the COPD definition relies only on spirometry. However, the main point of our paper is that respiratory symptoms are key features for defining COPD because their presence predicts long-term functional decline, respiratory care utilisation and quality of life in subjects with mild obstruction. In fig 1 we compare the decline in FEV_1 using the LLN and the GOLD criterion for obstruction. No relevant difference was observed between the two defining criteria. Thus, the use of LLN as a definition of early obstruction would not alter the main conclusion of our study.

The letter also points out that subjects with mild obstruction have symptoms not directly related to COPD but to other illnesses. In our cohort the prevalence of obesity or cardiovascular disease is low in symptomatic subjects with mild obstruction, and subjects with self-reported doctor-diagnosed asthma were excluded from the study at entry. Moreover, in SAPALDIA the occurrence of respiratory symptoms (as defined in our paper) was strongly associated with an accelerated decline in FEV_1 even in subjects with normal FEV_1 (⩾80%) at baseline (p<0.0001). This suggests that respiratory symptoms related to COPD may occur even when the FEV_1 is superior to 80%, a finding that is consistent with other studies. For example, in the Copenhagen City Heart Study, 35% of subjects with mild COPD reported chronic mucus hypersecretion and 22% wheeze with dyspnoea.[2]

In conclusion, we believe that assessment of respiratory symptoms contributes to identification of a group of patients at risk who may develop disease and poor long-term outcome, and therefore deserve to be closely followed. We fully agree with Dr Enright that smoking cessation is the primary treatment in patients with mild COPD.

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REFERENCES

1. **Bridevaux PO,** Gerbase MW, Probst-Hensch NM, *et al*. Long-term decline in lung function, utilisation of care and quality of life in modified GOLD stage 1 COPD. *Thorax* 2008:**63**:768–74.
2. **Vestbo J,** Sorensen T, Lange P, *et al*. Long-term effect of inhaled budesonide in mild and moderate chronic obstructive pulmonary disease: a randomised controlled trial. *Lancet* 1999:**353**:1819–23.