References

1 **GINA (Global Initiative for Asthma)**. *Global strategy for asthma management and prevention*. Available from www.ginasthma.com.
2 **Slader CA**, Reddel HK, Spencer LM, *et al*. Double blind randomised controlled study of two different breathing techniques for the management of asthma. *Thorax* 2006;**61**:651–6.
3 **Simmons MS**, Nides MA, Rand CS, *et al*. Unpredictability of deception in compliance with physician-prescribed bronchodilator inhaler use in a clinical trial. *Chest* 2000;**118**:290–5.
4 **Reddel HK**, Toelle BG, Marks GB, *et al*. Analysis of adherence to peak flow monitoring when recording of data is electronic. *BMJ* 2002;**324**:146–7.
5 **Ryan D**, Cobern W, Wheeler J, *et al*. Mobile phone technology in the management of asthma. *J Telemed Telecare* 2005;**11**(Suppl 1):43–6.

Assessing the efficacy of spirometry for smoking cessation

In a recent issue of *Thorax* Bednarek *et al*[1] presented interesting results from a large-scale prospective cohort study on the effect of combining spirometric tests with simple smoking cessation advice in 3077 middle-aged smokers with previously undetected airflow obstruction compared with smokers without airflow obstruction. Carbon monoxide-validated smoking cessation rates after 12 months of follow-up were 16% in subjects with airflow obstruction and 12% in smokers without airflow obstruction. These results are promising; however, we think that the authors' conclusion that spirometric screening of chronic obstructive pulmonary disease (COPD) is effective in smoking cessation is too far-reaching because of the limitations of the study design.

The conclusion by Bednarek *et al*[1] that spirometry is efficacious in smoking cessation is limited by the fact that their study was not a randomised controlled trial but a prospective cohort study comparing smokers with previously undetected airflow obstruction with those without airflow obstruction. This might have introduced bias. It is possible, for example, that the smokers with airflow obstruction in this study might have been more susceptible to the ''health warnings'' given by the doctor who evaluated the spirometric test results with them. This higher susceptibility to health warnings is indicated by the fact that the follow-up response rate was significantly higher among subjects with airflow obstruction (87%) than in those without airflow obstruction (62%), and that the follow-up response rate was associated with disease severity (90% in moderate to severe airflow obstruction compared with 81% in mild obstruction). Another problem is that neither prospective nor retrospective data appear to have been collected on whether smokers used pharmacological aids for smoking cessation on their own initiative during the 12 months of follow-up. The use of pharmacological aids for smoking cessation (such as nicotine replacement therapy, bupropion or nortriptyline) is more effective than behavioural treatment (advice) alone.[2 3] It cannot be ruled out that this use was differential, meaning that smokers with airflow obstruction were more likely to use this form of treatment in addition to advice from the physician.

The results of the study by Bednarek *et al*[1] are promising and in line with results from other studies.[4 5] However, evidence from well designed randomised controlled trials is needed on the efficacy of spirometry for smoking cessation. Smokers with airflow obstruction probably respond differently to smoking cessation treatment than those without airflow obstruction. It has been shown in previous studies that the former group is more likely to be older, to be more addicted to nicotine and tobacco and to have a longer smoking history (and therefore more pack years)—all of which are predictors of treatment outcome.[6] We therefore suggest that the use of spirometry for smoking cessation should be tested in a homogeneous group of smokers with previously undetected airflow obstruction who are randomised to undergo either counselling including confrontation with spirometry or councelling without confrontation. We are currently conducting such a trial (ISRCTN 64481813).

D Kotz, C P van Schayck
Department of General Practice, Care and Public Health Research Institute (CAPHRI), Maastricht University, Maastricht, The Netherlands

M J H Huibers
Clinical Psychological Science, Maastricht University, Maastricht, The Netherlands

G J Wesseling
Department of Respiratory Medicine, University Hospital Maastricht, Maastricht, The Netherlands

Correspondence to: Daniel Kotz, Department of General Practice, Care and Public Health Research Institute (CAPHRI), Maastricht University, P O Box 616, 6200 MD Maastricht, The Netherlands; d.kotz@hag.unimaas.nl

References

1 **Bednarek M**, Gorecka D, Wielgomas J, *et al*. Smokers with airway obstruction are more likely to quit smoking. *Thorax* 2006;**61**:869–73.
2 **Silagy C**, Lancaster T, Stead LF, *et al*. Nicotine replacement therapy for smoking cessation. *Cochrane Database Syst Rev*, 2004;(3)..
3 **Hughes JR**, Stead LF, Lancaster T. Antidepressants for smoking cessation. *Cochrane Database Syst Rev*, 2004;(4)..
4 **Stratelis G**, Mölstad S, Jakobsson P, *et al*. The impact of repeated spirometry and smoking cessation advice on smokers with mild COPD. *Scand J Prim Health Care* 2006;**24**:133–9.
5 **Gorecka D**, Bednarek M, Nowinski A, *et al*. Diagnosis of airflow limitation combined with smoking cessation advice increases stop-smoking rate. *Chest* 2003;**123**:1916–23.
6 **Jimenez-Ruiz CA**, Masa F, Miravitlles M, *et al*. Smoking characteristics: differences in attitudes and dependence between healthy smokers and smokers with COPD. *Chest* 2001;**119**:1365–70.

Authors' reply

We thank Dr Kotz and colleagues for their interest in our investigations and look forward to the results of their study.[1] Our study did not confirm the opinion that spirometric tests showing normal lung function would encourage smokers to continue to smoke. We are aware that our investigations were not randomised and pointed this out in the discussion. This weakness was also stressed in the accompanying editorial by Mannino.[2]

With regard to possible bias introduced by the use of pharmacological treatment by smokers in our study during 1 year of follow-up, we would like to repeat that (1) in the study protocol smokers were asked to use their own motivation only to stop smoking and not to take pharmacological treatment, and (2) during the follow-up visit all subjects confirmed compliance with the protocol. Although we cannot exclude the possibility that deviation from the protocol may have occurred in some cases, it seems unlikely. Pharmacological treatment of nicotine dependence is not reimbursed and is relatively expensive in Poland. Bupropion is on prescription and only nicotine replacement therapy is available over the counter.

The suggestion that approaching younger smokers would be more rewarding is worth exploring. In our experience, airway obstruction is much less frequent (10%) in smokers aged 35–40 years than in older age groups. Since younger smokers are also less inclined to stop smoking, perhaps smoking cessation clinics would be more cost effective for this group than spirometric testing.

Michal Bednarek, Dorota Gorecka, Jan Zielinski
2nd Department of Respiratory Medicine, National Research Institute of TB and Lung Diseases, 26 Plocka St, 01–138 Warsaw, Poland; m.bednarek@igichp.edu.pl

References

1 **Bednarek M**, Gorecka D, Wielgomas J, *et al*. Smokers with airway obstruction are more likely to quit smoking. *Thorax* 2006;**61**:869–73.
2 **Mannino DM**. Spirometric screening: does it work? *Thorax* 2006;**61**:834–5.

Spirometric screening for COPD: wishful thinking, not evidence

The effect of spirometric screening on smoking cessation rates in the before and after study reported by Bednarek and colleagues[1] is interpreted by the authors and, with reservations, in the accompanying editorial by Mannino[2] as evidence to support the introduction of spirometric screening to detect early chronic obstructive pulmonary disease (COPD). This goes against the evidence of the study itself, and opposes the results of the comparative study of spirometric screening published by the same workers in 2004.[3] Bednarek *et al* show an effect of spirometric screening in smokers with moderate or severe COPD (using 1995 European Respiratory Society criteria), but no effect in mild COPD despite the large numbers in their study. They repeat the findings of their earlier study, which is not mentioned in this paper by the authors themselves, nor is it mentioned by Mannino in his editorial. What is going on? Is there any significance in the fact that this work comes out of a programme entitled National Program of Early Detection and Prevention of COPD?[4] What seems to be clear from this work is that there is no evidence that early detection leads to prevention in COPD.

In the first study Gorecka *et al*[3] also claimed that their findings supported spirometric screening in mild disease. In fact they showed no effect overall, found evidence of an effect in a subgroup analysis of subjects with moderate or severe obstructive lung disease, and went on to make claims for the role of screening: ''All smokers irrespective of their lung function tried to modify the habit as the result of screening for COPD combined with smoking cessation advice. The diagnosis of AL (airway limitation) motivated smokers to quit smoking.'' Yet the results state unequivocally that there was no difference between smokers who had airflow limitation diagnosed and those who had normal lung function (NLF): ''The