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EDITORIAL

Searching for COPD: Are Questionnaires the Answer?

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Chronic obstructive pulmonary disease (COPD) remains an important cause of morbidity and mortality in the developed and the developing world (1, 2). Although COPD risk factors are well established and the burden of disease is high, a large proportion of COPD remains undiagnosed (3–5). In addition, some patients with a COPD diagnosis may have a disease process other than COPD (6).

Evidence is emerging that patients with undiagnosed COPD have more health related issues, such as lower quality of life and more health care utilizations, than people with normal lung function (7). Unknown, however, is whether diagnosis and subsequent intervention improves short- and long-term outcomes in these patients.

How does one detect undiagnosed COPD? A recent series of reports advise primary care physicians not to do spirometry (8–10). The 2008 recommendation states “Do not screen for chronic obstructive pulmonary disease using spirometry” (10). In the fine print accompanying the main recommendation, however, caveats appear: “this recommendation applies to healthy adults who do not recognize or report symptoms to a clinician and it does not apply to individuals with a family history of α 1-antitrypsin deficiency (10).” The overall rationale for this negative recommendation was that only severe COPD merits treatment and that severe COPD in never smokers is very rare.

This recommendation leaves primary care providers in a quandary. At a minimum, excellent clinical practice mandates that adults with a diagnosis of COPD or other chronic respiratory disease (asthma, sarcoidosis, pulmonary fibrosis) should have spirometry done. But who else should have spirometry done? Should the only indication for spirometry be to detect

COPD? In an attempt to address these questions, recent work has been done to assess the role questionnaire-based screeners to systematically quantify a group of patients at increased risk for having COPD (11,12). The paper by Dirven et al. in this issue of COPD represents an attempt to implement a staged approach to detecting COPD by using a telephone survey of a general practice population to identify an at-risk population and then doing spirometry on this at risk group (13).

A feature common to all of these risk stratification devices is that they provide a consistent and objective means to select patients for further testing. Another common feature is that they specifically identify older smokers. In most, being over the age of 60 with a significant smoking history gives you nearly all of the points needed to advance to spirometry.

Are questionnaires the answer to providing a means to detect undiagnosed COPD? They certainly are a means to consistently classify older current- or former-smokers, who are at an increased risk for having COPD. In accordance with the recommendation stated above (10) these serve to identify an at risk group using something other than spirometry, initially. Of course, this approach, while better than screening no one, can miss many people, such as those with minimal symptoms or low smoking histories. On the other hand, spirometry done in general practices can be of poor quality and underutilized (14, 15).

Is there a better way forward? It seems that the most efficient way to detect respiratory function impairment is to measure lung function, just as the best way to detect hypertension is to measure blood pressure and the best way to detect diabetes is to measure the blood sugar or other biomarkers. Although questionnaires provide information (just as questionnaires asking about body weight and polyuria would provide valuable information in diabetes), they will miss people in whom there is an opportunity for intervention.

Some tools on the horizon, such as mini- or “pocket” spirometers that can be used with the ease of a peak flow meter but give an accurate FEV₁ (16) may provide new options to detect and intervene in undiagnosed chronic respiratory disease. In the meantime, questionnaires such as that described by Dirven et al. (13), provide an opportunity to find a group of patients where the diagnostic yield of spirometry is higher than what would be expected in an unscreened population.

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Declaration of interest

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