Detection of previously undiagnosed cases of COPD in a high-risk population identified in general practice. - DTU Orbit (24/12/2018)

Detection of previously undiagnosed cases of COPD in a high-risk population identified in general practice.

Background and Aim: Under-diagnosis of COPD is a widespread problem. This study aimed to identify previously undiagnosed cases of COPD in a high-risk population identified through general practice. Methods: Participating GPs (n = 241) recruited subjects with no previous diagnosis of lung disease, >35 yrs, and at least one respiratory symptom. Age, smoking status, pack-years, BMI, dyspnoea score (MRC), and pre-bronchodilator spirometry data was obtained. Subjects with airway obstruction (FEV1/FVC ≤ 0.7) at initial spirometry were tested for reversibility, according to Danish COPD guidelines, with bronchodilator and, if necessary, corticosteroids in order to confirm a diagnosis of COPD. Results: A total of 4,049 (49% females) subjects were included; mean age 58 yrs, BMI 27, and 32 pack-years. The COPD prevalence was 21.7%; 8.3% in subjects younger than 48 years. Most patients were classified in GOLD stages I and II (36% and 50%, respectively). The number needed to screen (NNS) for a new diagnosis of COPD was 4.6. COPD diagnosis was related to gender, age, BMI (p < 0.001), pack-years, and cough (p < 0.001), wheezing (p < 0.001) and sputum production (p = 0.002). A threshold of 10% pre-test risk of COPD would have reduced the number of spirometry tests by 35% although 90% of the patients with COPD would still have been identified (NNS 3.9). Conclusions: Of the at-risk subjects studied, 22% were diagnosed with COPD. A case-finding strategy providing questionnaire assessment and diagnostic spirometry to high-risk subjects in primary care, and therefore, identifies a large proportion of undiagnosed COPD patients, especially in the early stages of the disease.

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