

European Respiratory Society Annual Congress 2013

Abstract Number: 5490

Publication Number: P943

Abstract Group: 6.1. Epidemiology

Keyword 1: COPD - diagnosis **Keyword 2:** Spirometry **Keyword 3:** Epidemiology

Title: Severity of airways obstruction and severity of COPD, which one?

Ms. Sonia 19558 Coton s.coton@imperial.ac.uk¹, Ms. Louisa 19559 Gnatiuc l.gnatiuc2@imperial.ac.uk¹ and Prof. Peter 19560 Burney p.burney@imperial.ac.uk MD¹.¹ Respiratory Epidemiology and Public Health, Imperial College London, London, United Kingdom, SW3 6LR .

Body: Background Current guidelines define COPD in terms of obstruction (FEV_1/FVC) but most scores define severity using the FEV_1 which is associated with both obstruction and restriction. We have used the BOLD data to construct a severity score based on FEV_1/FVC and compared this to the equivalent score using FEV_1 and tested their relative ability to predict symptoms and quality of life. Methods Subjects with post-BD $FEV_1/FVC < 0.70$ were classified as moderate, severe and very severe COPD using the GOLD cut-offs of post-BD FEV_1 % predicted < 80 , < 50 and < 30 respectively and using the BOLD alternative cut-offs of post-BD FEV_1/FVC % predicted < 86 , < 69 and < 46 respectively. Agreement of the two classifications was assessed using a Kappa statistic. We estimated sensitivity and specificity of the GOLD criteria as a test for identifying severity of obstruction and we assessed how the two classifications correlate with reported dyspnoea, quality of life and exacerbations in subjects with obstruction. Results The quadratic weighted Kappa displayed moderate agreement between the two classifications ($\kappa = 0.6$). The two classifications identify different individuals as moderate, severe and very severe as obstruction becomes more severe: sensitivity=0.7, specificity=0.9 for moderate; sensitivity= 0.6, specificity=0.9 for severe; sensitivity= 0.5, specificity=0.9 for very severe. The two classifications had the same ability to predict dyspnoea, MMRC score, QoL and increased frequency of exacerbations among those with obstruction. Conclusion Among those with airway obstruction low FEV_1 and low FEV_1/FVC identify different groups. Both scores predict similar levels of dyspnoea, QoL and exacerbations.