Diagnostic accuracy of clinical symptoms in obstructive airway diseases varied within different health care sectors.

Abstract:
To determine the diagnostic accuracy and diagnostic patterns of clinical symptoms in patients suspected to suffer from obstructive airway diseases (OADs) within different health care sectors. Ten general practices (219 patients), one practice of pneumologists (259 patients) and one specialist hospital (300 patients). Sensitivities, specificities, positive (LR+), and negative (LR-) likelihood ratios of clinical symptoms were compared with lung function testing. Thirty-one percent had chronic obstructive pulmonary disease (COPD), 21% had asthma. Sensitivities increased and specificities decreased from outpatient to hospital setting. The multivariate model of adjusted likelihood ratios for COPD showed LR+=4.86 (95% confidence interval [CI]=2.09-11.29) and LR-=0.07 (95% CI=0.01-0.43) of the combination "wheezing," "dyspnea when going upstairs," "smoking" in general practice. In hospital, the combination "dyspnea when going upstairs," "dyspnea during minimal exercise," and "smoking" showed LR+=3.34 (95% CI=2.08-5.31) and LR-=0.02 (95% CI=0.01-0.12). The combination "no coughing," "dyspnea attacks," and "no smoking" showed LR+=4.08 (95% CI=1.67-10.4) and LR-=0.24 (95% CI=0.12-0.58) for asthma in general practice. The combination "dyspnea attacks" and "no dyspnea when walking" showed LR+=6.48 (95% CI=1.01-40.94) and LR-=0.28 (95% CI=0.11-0.75) for
asthma in hospital. Clinical decision rules for OAD need to be derived from original studies in their respective settings or assessed on their transferability to other settings.