

FEASIBILITY OF SPIROMETRY IN GERIATRIC PATIENTS

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Objectives: Chronic obstructive pulmonary disease (COPD) is frequent among older subjects. Spirometry appears to be the best tool to detect COPD and to evaluate disease severity. Since much older subjects are frail or show cognitive impairments, COPD is often under diagnosed because spirometry is not feasible in those subjects. However, the percentage of older subjects who are unable to perform spirometry is not clear.

Methods: We analyzed retrospectively the feasibility of spirometry in geriatric in-hospital patients. All patients had to undergo spirometry and a comprehensive geriatric assessment. Patients were divided into two groups according to their ability to perform spirometry. Results of the geriatric assessment were compared between groups.

Results: From a total of 521 patients 393 (75.4%) were performed spirometry successfully while 128 (24.6%) were did not. Cognitive functioning and activities of daily living showed a significant difference between the groups. There was no difference between the groups in terms of age, or co-morbidities. In a logistic regression analysis with successful spirometry as the independent variable, dementia (OR 1.50; 95% CI: 1.11 - 2.05; $p < 0.01$) and activities of daily living (OR 1.04; 95% CI: 1.02 - 1.05; $p < 0.01$) were independently associated with failure to perform a spirometry.

Conclusions: One quarter of geriatric in-hospital patients is unable to perform spirometry successfully. Feasibility of spirometry was associated with cognitive and functional impairment. Age itself could not be considered a risk factor for failure to perform spirometry.