



Can the five repetition sit-to-stand test discriminate inpatients and outpatients with acute exacerbations of COPD?

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Abstract

The five repetition sit-to-stand test (5STS) is a simple and validated functional test, suitable to be performed in different settings, that has been related with mortality in chronic obstructive pulmonary disease (COPD). Yet, its relationship with the need for hospitalisation is unknown. This study explored the 5STS ability to discriminate between hospitalised and non-hospitalised patients at the onset of an acute exacerbation of COPD (AECOPD).

Patients with AECOPD visiting the urgency ward of 2 hospitals were recruited. Clinicians defined the need for hospitalisation based on their best judgment. The 5STS was completed within 48h of the AECOPD onset.

Receiver operating characteristic analysis was performed and the area under the curve (AUC) was calculated.

47 patients (92% male, 69±7yrs, FEV150±20%predicted) participated. Age, gender, FEV1, body mass index and quadriceps muscle strength were not different between inpatients and outpatients. 5STS showed good ability to discriminate between inpatients and outpatients (AUC=0.73; 95%CI 0.59-0.88), with a sensitivity of 75% and specificity of 53% for a cut-off of 13.7s (Fig. 1).

5STS can accurately discriminate between inpatients and outpatients with AECOPD. A cut-off of 13.7s may be used to differentiate these patients. Results also emphasise the need to improve patients' functionality during

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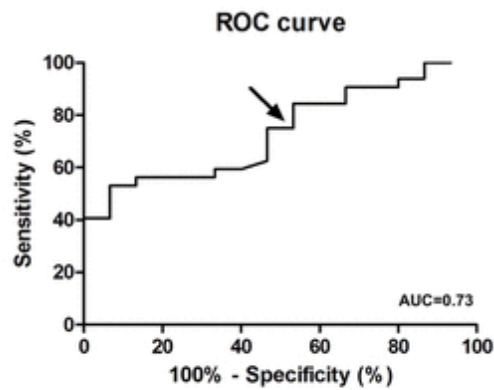


Fig. 1 – Receiver operating characteristic (ROC) curve of the five repetition sit-to-stand test to discriminate between inpatients and outpatients with AECOPD.

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