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Abstract Group: 1.1. Clinical Problems
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Title: High COPD assessment test (CAT) score is associated with unscheduled health care utilization

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Body: Introduction: CAT is a simple, short and patient-completed instrument for assessing health-related quality symptom burden in patients with COPD. This study prospectively assessed if CAT score at baseline is associated with unscheduled health care utilizations (UHCU) related to acute exacerbation of COPD over 12 months. Method: 100(95males) COPD subjects were recruited at their stable state. Baseline demographic data and CAT score were captured. Subjects were followed up every 3 months. The number of exacerbations leading to UHCU to private doctors, emergency department attendance and hospitalizations was recorded prospectively for 12 months. Results: The mean(SD) age and $FEV_1\%$ predicted normal of the subjects were 75.2(7.9) years and 46.1(19.3)%. The mean CAT and MMRC score were 12.0(8.9) and 2.8(0.8) respectively. There were total 177 UHCU episodes in 1 year. Subjects with CAT score ≥ 10 had more UHCU than those with CAT score <10 over a period of 1 year (70 vs 48%, p<0.04). Multivariate analysis using sex, age, BMI, $FEV_1\%$ predicted normal, MMRC and CAT quartiles showed that BMI (OR 0.88, 95%CI0.783-0.996], p=0.43) and MMRC score (OR 2.94, 95%CI 1.36-6.36, p=0.006) were independent predictors of UHCU. Classification of COPD severity according to the 2012 GOLD guideline using to lung function, previous exacerbations and CAT score found that groups A(n=18), B(n=14), C(n=32) and D(n=36) subjects had difference in pattern of UHCU with group D having most UHCU (HR 7.91 for Group D vs A, 95%CI 2.40-26.11, p=0.01). Conclusion: High CAT score was associated with UHCU.