European Respiratory Society
Annual Congress 2012

Abstract Number: 4572

Publication Number: P1003

Abstract Group: 6.1. Epidemiology

Keyword 1: COPD - exacerbations **Keyword 2:** Elderly **Keyword 3:** Public health

Title: Co-morbidities are associated with prolonged hospital length of stay (LoS) in patients with COPD

Dr. Nivenka 29472 Jayasekera nivjay@doctors.org.uk MD , Dr. Maria 29473 Feldmann m.feldmann@ucl.ac.uk MD and Dr. Angshu 29474 Bhowmik angshu.bhowmik@homerton.nhs.uk MD . [1] Division of Infection, Inflammation and Immunity, University of Southampton, United Kingdom, SO16 6YD and [2] Respiratory Medicine, Homerton University Hospital, London, United Kingdom, E9 6SR .

Body: Identification of factors leading to prolonged hospital stay may help to find patients who need targeted approaches to management. Appropriate resource allocation would help to reduce the time spent in hospital. Co-morbidities are common in COPD and may lead to prolonged admissions. We performed a retrospective case note analysis of patients with COPD who had admissions lasting longer than average. Spearman's correlation and Mann-Whitney test were used to identify relationships between co-morbidities and LoS. Data were obtained for 204 patients (mean age 73.9, 135 males) who had 267 hospital admissions of duration greater than 9 days in a one-year period. The total number of bed-days was 6127. 38 patients (19%)had more than one admission, the number of admissions ranging from 2 to 7. These 38 patients occupied 2509 bed-days (41% of total). LoS was found to be correlated with greater age ($p = 0.005$), admissions related to dementia ($p=0.005$) and the presence of respiratory infection diagnosed by the admitting team. Cardiac arrhythmias seem to be associated with prolonged LoS ($p=0.01$). As might be expected, patients who were admitted with exacerbations of COPD alone (i.e. no other reason for admission identified) had shorter LoS compared with those who had other identified reasons for admission ($p=0.028$). No definite correlations were found with heart failure, ischaemic heart disease, psychiatric history or stroke. Other co-morbidities seen included pulmonary embolism and lung cancer, but the numbers were low and the results for these were therefore inconclusive. We conclude that age, dementia and the presence of respiratory infection are factors associated with prolonged stay.