

Hospital Frailty Risk Score Predicts Outcomes in Chronic Obstructive Pulmonary Disease Exacerbations

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Abstract

Patients with chronic obstructive pulmonary disease (COPD) are at high risk for frailty and prone to complications after admission for an acute exacerbation. We aim to investigate the association between frailty risk and functional outcomes in patients with acute exacerbations of COPD, using a nationwide Database. This retrospective cohort study included patients with acute exacerbations of COPD who were admitted by ambulance. We assessed frailty using the Hospital Frailty Risk Score (HFRS) and compared the outcomes between low frailty risk (HFRS < 5) and frailty at risk (HFRS ≥ 5) groups. The primary outcome was prolonged hospitalization (≥30 days). The secondary outcomes were in-hospital mortality, readmission (≤90 days), poor activities of daily living (ADL) at discharge, and difficulty in returning home. There were 3,396 eligible patients (mean age, 75.9 ± 11.2 years; 20.4% female). The rate of frailty at risk patients was 14.0%. Frailty at risk patients were significantly higher rates of prolonged hospitalization (32.9% vs. 17.5%), more in-hospital mortality (16.4% vs. 12.5%), more difficulty in returning home (34.6% vs. 22.9%), and poorer ADL at discharge (8.7% vs. 12.4%) than those of low frailty risk. Multivariate analysis with adjusted covariates showed that HFRS was independently associated with prolonged hospitalization (odds ratio, 2.0; 95% confidence interval, 1.4–2.9). HFRS can be used to predict the outcome of patients with acute exacerbations of COPD. This finding supports the validity of using the HFRS in clinical practice with patients with acute exacerbations of COPD.

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Biography

Dr. Ankur Gupta is Physician and Clinical Pharmacologist working with A.Menarini Asia Pacific in Singapore. He has 11+ years of experience on AMR and Antimicrobial Stewardship in Asia Pacific Region and Emerging markets (Russia, Latin America, S Africa). He developed the concept and helped in making implementation metrics of Antimicrobial Stewardship (AMS) in many tertiary care hospitals in India. Has helped more than 100 tertiary care hospitals in India in making evidence based antimicrobial treatment protocols based on the concepts of Antimicrobial Stewardship. Has trained medical personnel in about 25 countries (Asia pacific region,

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