

PREDICTORS FOR MECHANICAL VENTILATION IN ACUTE EXACERBATION OF COPD WITH RESPIRATORY FAILURE

RAMESH M, ROOPESH BANALA & KRANTHI KUMAR

Department of Emergency Medicine, PES Institute of Medical Sciences & Research,
Kuppam, Andhra Pradesh, India

ABSTRACT

The COPD is the sixth leading cause of mortality in the world and the third most common cause of hospitalization in Indian Scenario. According to Gold (1985) COPD- is characterized by airflow limitation that is not fully reversible. Approximately 85% of patients with COPD suffered from chronic bronchitis, and 15% suffering from emphysema. Due to paucity of literature effective programme has not been implemented at national level .In this context of the research gap, the present study aims to identify the predictors and need of mechanical ventilation among patients with acute exacerbation of COPD with respiratory failure and device a new scoring system based on the observations. Recruited patients presenting the chief complaints at casualty with acute exacerbation of COPD Respiratory failure was enrolled underlying with COPD. The parameters were compared between patients needing mechanical ventilation and those managed on modified medical therapy. Statistical analysis was done by using SPSS version 19 univariate analysis was done for testing the hypothesis. The study included a total of 100 patients. Of the 100 patients 73 (73%) were males and 27 females. 56 patients required mechanical ventilation. Of the 56 patients 15 needed intubation and 41 were managed on NPPV. Age >70 years, $P_{CO_2} > 60$ mm Hg, respiratory >30 bpm, heart rate >115 bpm were significant factors in patients requiring mechanical ventilation. Patients with more number of acute physiological derangements had higher incidence of mechanical ventilation rates. Patients with chronic organ failure, acute kidney injury and reduced GCS are the patients for invasive mechanical ventilation. The score could be validated appropriately by randomized controlled trials (RCT) for wider range of clinical settings.

KEYWORDS: *AECOPD, Respiratory Failure, Mechanical Ventilation, NIV*