Introduction:
Community-acquired pneumonia (CAP) is the most common infectious disease requiring admission to intensive care units (ICUs). The aim of this study was to investigate factors predicting poor outcome: the composite of in-hospital mortality and/or mechanical ventilation, in patients admitted to hospital because CAP.

Methods:
Between June 1, 2014 and September 30, 2018, 312 patients with CAP were prospectively registered. On admission data including patient characteristics, clinical findings, radiologic features and need for mechanical ventilation were assessed and further analyzed. Mechanical ventilation was defined as the requirement of invasive and/or non-invasive ventilation at any time during hospitalization. A multivariate analysis was performed to identify predictors of poor outcome.

Results:
Three hundred and twelve patients were included in the study and 26% of them had a poor outcome. In multivariate analysis, patients with a history of chronic obstructive pulmonary disease (COPD) (p=0.002), and those with elevated values of heart (p=0.001) and respiratory rates (p=0.01), and increased urea levels (p=0.01) had a worse outcome. (AUC ROC 0.83; 95% IC: 0.78-0.87).

Conclusion:
A history of COPD, elevated heart and respiratory rates and increased urea levels at admission were independent variables of poor outcome in patients with CAP.