

7. Kongres Hrvatskog  
torakalnog društva

7<sup>th</sup> Congress of Croatian  
Thoracic Society

**TORAKS**

2017

Hotel Westin Zagreb

**26. - 29. TRAVANJ / APRIL**



## **HOSPITAL READMISSION RATE AND MORTALITY AFTER SEVERE EXACERBATION OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE**

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**Background:** It is well known that acute exacerbations of chronic obstructive pulmonary disease (AECOPD) are associated with increased morbidity, readmission rates and mortality, but few studies report rehospitalization and mortality rate after severe AECOPD treated in intensive care unit (ICU).

The aim of our study was to assess two year readmission rates and mortality in AECOPD patients treated in ICU and to identify determinants of these outcomes.

**Methods:** 55 patients (35 men) mean age 68.1 ( $\pm 10.5$ ) years successfully treated in respiratory ICU due to AECOPD and discharged from hospital were included in the study. Patients demographics, hematology, biochemistry and arterial blood gases on the first treating day were recorded.

**Results:** During the median follow-up of 2.4 years, 29 (46.8%) patients had one or more readmissions due to AECOPD. The average number of readmissions was 1.2. Significant predictors for the time to next hospitalization were initial PaCO<sub>2</sub>, fibrinogen, proteins and alpha 2 globulins ( $p=0.001$  for the overall model fit). Significant

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predictors for the number of readmissions were: age at admission, neutrophil count, serum sodium, bilirubin, coronary artery disease ( $p < 0.001$  for the overall model fit). During the follow-up, 21 (38.2%) patients died. Significant predictors for survival time after incident hospitalization were: BMI, monocyte count, serum LDH, cancer and hypertension ( $p < 0.001$  for the overall model fit).

Conclusion: Our study suggests that patient age, comorbidity, BMI and certain biochemistry parameters are potential predictors of readmission and poor outcome after AECOPD treated in ICU. Further studies are needed to verify our findings.