

Category :[ICU organization](#)

A165 - Factors associated with survival after intensive care unit (icu) admission due to coronavirus disease. preliminary results of a newly established icu

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Introduction:

Newly established Intensive Care Unit (ICU) departments in the era of COVID-19 pandemic outbreak were forced to adapt and find pace. We recorded the epidemiologic characteristics of our cohort of patients in order to determine which factors, if any, could have a positive effect on ICU survival.

Methods:

This prospective observational study was conducted in a 13-bed capacity ICU. On admission age, gender, preexisting comorbidities (arterial hypertension, cardiovascular disease, diabetes mellitus, morbid obesity, pulmonary disease), and disease severity scores APACHE II and SOFA were recorded. Duration of stay and final outcome were also noted. A Kolmogorov-Smirnov test checked normality. An unpaired student T-test was performed for continuous variables. Analysis of variance (Anova) tested for differences in the means between categorical and continuous variables.

Results:

Between December 24th 2020 and May 28th 2021 64 patients (70,3% male) with median age 64,5 years were ICU admitted. 51 patients (79,6%) were under invasive mechanical ventilation and 13 patients were on HFNC. 14 patients died (21,8%). Survivors in relation to non-survivors were male ($p=0.028$), younger ($p=0.000$) and had lower APACHE II score ($p=0.030$). We investigated whether age, number of comorbidities, obesity, duration of ICU stay, and severity scores could predict patients' outcome. The model explained 98% of the variance and it was a significant predictor of outcome [$F(6,3) = 27,99$, $p = .01$]. While obesity ($B = -0.43$, $p < .039$), SOFA ($B = -0,88$, $p = 0,04$) and Apache II scores ($B = 1,13$, $p = 0.004$) contributed significantly to survival, age ($p = 0,09$) total comorbidities ($p = 0,07$) and duration of ICU stay ($p = 0,14$) did not.

Conclusion:

Nonobese patients and low SOFA scores had better outcome in this cohort of patients. Age per se should not be a part of the triage procedure. These results warrant further investigation and should be used cautiously to guide difficult clinical decisions.

References:

Petrilli CM *et al* BMJ. 2020 May 22;369:m1966.