Predictors of 6-Month Mortality in Hospitalized COVID-19 Patients, A Single-Institution Study

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Background: Much of the data relating to post-acute COVID-19 infection morbidity and mortality risk is ninety-day data; however, less is known about longer term outcomes of mortality.

Objectives: Our objective is to determine predictors of 6-month mortality on admission in hospitalized COVID-19 patients.

Methods: This is a single-institution, retrospective study. We included patients hospitalized with COVID-19 from University of Toledo Medical Center in Toledo, Ohio who were admitted within the timeframe of March 20,2020 to June 30, 2021. Two groups were created based on the mortality outcome at 6 months from COVID-19 positive testing: survivors and non-survivors. The clinical variables or outcomes and laboratory values were compared using non-parametric methods due to the small sample size and non-normality of the data. Either the Mann-Whitney U-test for continuous variables or the Fisher's exact test for categorical variables was used for statistical analysis.

Results: Lactate dehydrogenase (LDH) (p=0.032) and D-dimer levels (p=0.019) were significantly higher in non-survivors on admission than in survivors. Demographic factors, comorbid conditions, and other laboratory data did not differ significantly between survivors and non-survivors.

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Conclusion: Increased LDH and D-dimer levels on admission were found to predict 6-month mortality in hospitalized COVID-19 patients.

