

عنوان مقاله:

Analyzing Survival Outcomes of COVID-19 Patients : A Cox Regression Approach with Schoenfeld Residual Diagnostics

محل انتشار:

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خلاصه مقاله:

Background: In this study, data were collected from the Eastern Democratic Republic of Congo and analyzed by Cox regression model. In addition, hazard functions and survival outcomes in COVID-19 patients were also analyzed. Materials & Methods: One million simulated data on hospitalized patients' characteristics with positive SARS-CoV-2 infection were collected from the Humanitarian Data Exchange Source in the Eastern Democratic Republic of Congo from December 2020 to June 2021. Several statistical techniques were developed in this study for data analysis, including Kaplan-Meier curves, log-rank test, Schoenfeld residual diagnostics, and likelihood ratio test. Findings: This study finding showed that there was a 4.5% increase in the expected hazard per unit year increase in age. In addition, the risk of death was higher in males than in females, and patients with no signs of anorexia, ageusia, or anosmia, no history of diabetes or tuberculosis, normal pulse rates, and no hypoxemia had a greater survival rate than those with such health conditions. Conclusion: This study finding revealed that covariates such as age, gender, anorexia, ageusia, anosmia, diabetes, and tuberculosis were expressively connected with higher mortality rates. In addition, hypoxemia and high pulse rate were associated with higher death rates; however, anti-inflammatory and .anticoagulant agents were shown to reduce mortality rates, and multivitamin or vitamin C had a substantial impact on patient survival

کلمات کلیدی:

COVID-19, Mortality, Death rate, Cox regression, Kaplan-Meier curve, Log-rank test, Schoenfeld residuals, Survival function

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