

# Using troponin-I levels on admission as a predictor of severity and Outcome in COVID-19 virus disease

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## Abstract

**Objective:** The novel SARS-COV-2 virus affected millions worldwide, wreaking havoc, the likes of which can rarely be anticipated. Research is on the verge to counter this disease. It is now known that myocardial injury is one of its manifestations. However, Troponin-me levels (cTnI) for prognostication of disease severity and outcome remains determined. **Methods:** We conducted this retrospective study on confirmed COVID-19 virus disease cases from 1st April 2020 till 31st October 2020. Data was acquired from the hospital's electronic record. Cox proportional hazard regression model was conducted to perform a mortality survival analysis. The probability curves of survival were estimated using the Kaplan-Meier method and contrasted with the log-rank test. **Results:** A total of 466 patients were enrolled in our study. Most of them were male and elderly. The majority were both hypertensive and diabetic, and one third had a myocardial injury on arrival. Our study showed mortality rate was higher in patients with associated comorbidities, i.e., hypertension (HR2.13) and ischemic heart disease (IHD) (HR 2.02), and in those with elevated troponin-me level (HR 1.80) on admission. **Conclusion:** Our study concluded that in confirmed COVID-19 virus disease cases, measuring troponin-me levels on arrival could help predict the severity and outcome. **Keywords:** SARSCoV2, Coronavirus, COVID19, Troponin, Cardiac enzymes, biomarkers, 2019 Novel Coronavirus Infection, COVID 19 Virus Disease

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