Effects of Comorbidities on Hospitalization Costs of COVID-19 in Turkey

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Abstract

Background: In December 2019, pneumonia associated with the 2019 novel coronavirus (2019-nCoV) emerged in Wuhan, China. Its effects on the national and global economies have been tremendous. There is limited evidence on treatment costs and effects of comorbidities on treatment costs, which are crucial inputs for policymakers. Objective: The main objective of this study is to retrospectively determine the direct costs of hospitalization due to COVID-19 treatment and their association with comorbidities. Methods: This is a retrospective study conducted at two prominent research and training hospitals in İzmir, Turkey during the first year of the COVID-19 pandemic. First hospitalization costs of 2,067 patients with COVID-19 were analyzed. Second association of comorbidities with hospitalization costs of 532 patients with COVID-19 was estimated. Results: Analyses based on the whole sample of 2,067 patients showed that the average hospitalization cost was $1,432.3 (PPP $4,994.7). Treatment cost is higher for male patients and increases with age and intensive care unit admissions. The average length of hospitalization was 10.6 days (SD=8.5) and the average length of ICU hospitalization was 9.9 (SD=9.6). The average daily hospitalization cost was $135.25 (PPP $471.63). Analyses showed that sex, age, intensive care unit hospitalization, myocardial infarction, cerebrovascular and transient ischemic attacks, chronic obstructive pulmonary disease and chronic kidney disease were found significantly associated with hospitalization costs. Conclusion: COVID-19 is a novel pandemic that causes morbidity and mortality at considerable levels. A holistic approach to fight the pandemic requires unraveling not only medical but also financial aspects.

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