

NAPCRG 52nd Annual Meeting — Abstracts of Completed Research 2024.

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Title

A New Normal? Assessing Trends and Changes in Inpatient General Medicine During The COVID-19 Era

Priority 1 (Research Category)

Big Data

Presenters

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Abstract

Context: The COVID pandemic disrupted global healthcare, impacting academic medical centers (AMCs) in the United States, necessitating a comprehensive understanding of its effects on healthcare delivery and utilization.

Objective: To assess the epidemiology and mortality risk among patients discharged from AMCs General Medicine Service Lines in the US from Oct 2019 to Dec 2023.

Study Design: This retrospective case series analysis utilizes Vizient's clinical database data. The study is divided into three periods: pre-COVID (Oct 2019 to Mar 2020), COVID (Apr 2020 to May 2023), and post-COVID (Jun 2023 to Dec 2023). Mixed models were used for analysis.

Setting: AMCs within the US.

Population Studied: The study population includes adults over 18 discharged from an AMC.

Outcome Measures: The primary outcomes were the number of discharges, length of stay (LOS), mortality, and case mix index (CMI).

Results: Our analysis of 4,000,884 discharges from 106 AMCs revealed that average monthly discharges pre-COVID (739) were significantly higher than during COVID (718) and that the COVID period was significantly lower than post-COVID (745) (F-statistic = 41.64, p-value of <.0001). The pre-COVID LOS was lower (5.4) than during and post-COVID (5.9) (F-statistic 312.96, P<0.0001). The mortality rate peaked during COVID at 3.5, compared to 2.1 pre- and post-COVID (F-statistic 144.92, P<0.0001). The CMI was higher during COVID (1.34) than both pre and post-COVID (1.25 and 1.31) (F—statistic 564.13, P<0.0001).

Conclusions: AMCs General Medical Service lines experienced significant changes during and after the COVID pandemic including increased LOS during COVID that has persisted post-COVID and an increased severity of illness as assessed by CMI during COVID that has decreased somewhat, but not back to pre-COVID levels. Changes in mortality rate peaked during COVID but have seemingly decreased back to pre-COVID levels. Given these findings, future research should investigate the long-term effects of these trends on the quality and cost of care within AMCs. Studies should particularly assess whether the increased LOS and CMI during the pandemic have translated into higher healthcare costs or affected patient outcomes. Comparing these trends with data from other countries could provide a broader understanding of the pandemic's impacts on healthcare systems regionally. Such studies will be crucial in shaping policies and strategies to prepare for future global health crises.

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