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# ***BRIEF19***

*A daily review of covid-19 research and policy*

## ***RESEARCH BRIEFING***

**Hospitalizations for non-covid-19 conditions in New York confirmed lower this Spring.**

A new paper published in *JAMA Internal Medicine* looks at trends in hospitalizations for non-covid-19 acute and chronic medical conditions across four hospitals in the NYU Langone Health system in New York City. Hospital admission from the peak of the pandemic (March 1 to May 9, 2020) were analyzed and compared to hospital admission trends during the same time period in the years 2018 and 2019.

The researchers identified 3,657 non-covid-19 hospitalizations during the aforementioned period in 2020. When compared to 2018 and 2019 admission, there was no significant difference in admission rates during the early pandemic period, though decreases in admissions were noted during the peak of the early pandemic period.

Consistent with prior research, the researchers observed decreases in hospitalizations for the following disease processes: sepsis, heart failure, heart attacks, strokes, gallbladder disease, seizures, appendicitis, and emphysema (or chronic obstructive pulmonary disease/COPD) exacerbations. The authors note in their study, "while hospitalizations for acute events began recovering in the late covid-19 period, many of those related to chronic diseases generally did not."

This study is limited by its inability to demonstrate causation. By nature of the study design, it does not and cannot prove with certainty that the results are due to sick patients avoiding the hospital during the pandemic. However, this study is yet another data point in the sea of data that suggest that there was less treatment of acute medical problems during the pandemic period. The question remains whether there were people who needed treatment who avoided it, or whether there were fewer triggers for these emergencies, such as decreases is stress, less pollution, and people staying home and eating healthier meals rather than eating out. *—Joshua Niforatos, MD*

**A decrease in medical care during the pandemic. Why that may not mean what you think.**

Here in *Brief19*, we have covered papers in the medical literature describing similar patterns to that described in the briefing above and in another similar letter in *JAMA Internal Medicine* also released this week. Heart attacks and stroke were lower than expected during the shelter-in-place period, and later bounced back in the parts of both the United States and the United Kingdom.

The doomsday implication is that these emergency events still happened but patients were afraid of covid-19, and did not call for help that would have brought them to the hospital. But another possibility is that there simply were fewer non-covid-19 emergencies during the shutdown period. For example, in California, air pollution plummeted during the shutdown, which is known to lower both the short and long-term risk of strokes and heart attacks. Even stress from watching sports (which were canceled this Spring) has been associated with an increase in heart attacks.

This summer, my colleagues and I published work in medrxiv in which we found that in all areas with low covid-19 prevalence, there was no change in actual heart disease *deaths*, even though ER use plummeted during that time. Heart disease deaths rates *did* go up in a few covid-19 hotspots, though, indicating that the increases might have actually been undetected covid-19.

*—Jeremy Samuel Faust, MD MS*