

Extra precautions during CPR due to the pandemic do not have a negative impact on survival

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Due to the COVID-19 pandemic, safety precautions were initiated for health care professionals who are administering CPR, and the new protocols have not had a negative effect on patient outcomes or survival, according to preliminary research presented at the American Heart Association's Resuscitation Science Symposium 2020.

"The increased precautions taken by [health care professionals](#) are for their own safety and for the safety of other patients in the hospital, and help the greater community," said Priyanka Sheth, lead author of the study and a master's candidate at the University of Louisville in Kentucky. "Based upon this analysis, the use of equipment such as N-95 face masks, face shields and protective gowns do not appear to be degrading the quality of patient care, at least specifically during CPR procedures."

Due to the COVID-19 pandemic, new interim CPR guidance was introduced by the American Heart Association and the Centers for Disease Control and Prevention (CDC) encouraging health care professionals to increase precautions with respect to [personal protective equipment](#) (PPE) and protocols used when administering cardiopulmonary resuscitation (CPR). The interim guidance has been widely adopted during emergency situations involving patients with known COVID-19, as well as for patients suspected to have COVID-19. There has, however, been debate about possible strain the new guidance

places on health care professionals and whether or not the additional protective equipment is impacting the quality of CPR administered, potentially leading to poor [patient outcomes](#).

To assess the safety and effectiveness of the updated CPR practices during the pandemic, this study analyzed the outcomes for patients at one medical center in Kentucky who were treated with in-hospital CPR. Researchers compared patient outcomes from March to June 2020 to outcomes of patients treated from March to May 2019.

Researchers examined the patients' demographics, comorbidities and body mass index (BMI) measurements, as well as the characteristics of CPR performed and patient outcomes. The patient groups were matched by patient characteristics, although the patients who were COVID-19 positive had significantly higher BMI than the patients without COVID-19.

A total of 94 hospital codes (codes indicating that CPR was performed) identified 80 patients for the study. In 2019, in-hospital CPR was performed 41 times, and none of the patients had COVID-19. Of the 2020 in-hospital CPR treatment codes analyzed, 43 patients did not have COVID-19, and 10 patients were COVID-19 positive.

The average amount of time of the CPR event was significantly greater for the patients with COVID-19. The year-to-year comparison did indicate, however, there was no significant difference in the percentage of patients who survived. Of the patients who were COVID-19 positive, 50% survived the code event, compared to 64% of the patients without COVID-19. Data also indicated that only one of the patients with COVID-19 (10%) survived to hospital discharge, compared to 25% of patients without COVID-19.

Study researchers concluded patient outcomes were similar for the

patients in 2019 and 2020, indicating that additional precautions taken by health care professionals because of the COVID-19 outbreak are not degrading the quality of CPR administered.

"The safest practice for both health care professionals and for patients is to continue following the American Heart Association and CDC guidance when it comes to extra precautions during CPR administration," said Sheth. "Future research could potentially replicate this study on a national scale to assess if the same trends can be observed across multiple medical centers."

More information: Session: AOS.02a Lightning Round Oral Abstract Presentations: COVID19 and Its Impact on Cardiac Arrest Care.

Provided by American Heart Association

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