Circulation: Cardiovascular Quality and Outcomes

RESPONSE TO LETTER TO THE EDITOR

Response by Chan to Letter Regarding Article, "In-Hospital Cardiac Arrest Survival in the United States During and After the Initial Novel Coronavirus Disease 2019 Pandemic Surge"

Paul S. Chan, MD, MSc

In Response:

As Stewart notes in this and other letters to the editor,[1–3] time variables are particularly hard to collect in a medical emergency such as in-hospital cardiac arrest. Participating hospitals in the Get With The Guidelines-Resuscitation registry (the data source for our study) devote substantial resources to improving resuscitation outcomes for patients with cardiac arrest, and there are certainly difficulties in accurately capturing data on variables such as time to defibrillation and epinephrine administration. However, the primary focus of this study was about survival outcomes during the COVID-19 surge in 2020. We applaud the hospitals' tireless efforts to report process and outcome measures during this difficult period in health care delivery, even when they were overwhelmed and understaffed. This transparency in reporting lower survival rates during the first pandemic surge was critical to understanding the impact of COVID-19 on in-hospital cardiac arrest outcomes in early 2020.

We have no reason to believe that hospitals did not apply the same level of transparency to reporting time-based process-of-care measures during the study period. Even as we know that there are some inaccuracies in data collection on time variables (which we expect bias results toward the null), prior studies have found clear associations between time to defibrillation[4] and time to first epinephrine[5] with higher survival rates for in-hospital cardiac arrest. We agree that more accurate collection of time data would, in theory, yield better data; we also agree that hospitals may instead choose to prioritize limited staff resources to quality improvement efforts, which improve survival without neurological disability—the outcome of greatest interest to patients and their families.

ARTICLE INFORMATION

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Disclosures

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