

LETTER TO THE EDITOR

Letter by Stewart Regarding Article, “In-Hospital Cardiac Arrest Survival in the United States During and After the Initial Novel Coronavirus Disease 2019 Pandemic Surge”

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To the Editor:

The recent article on in-hospital cardiac arrest outcomes¹ adds to the evidence that survival from in-hospital cardiac arrests has decreased due to the COVID-19 pandemic. In addition, the authors looked at the pandemic's effects on resuscitation practices and processes of care—but that analysis was impeded by significant problems with the study data.

Research and quality improvement related to in-hospital resuscitation are seriously hampered by the poor quality of available time data. The American Heart Association's Get With The Guidelines—Resuscitation registry (GWTG-R, formerly NRCPR) has attempted to track time intervals since 1999, but there are many reasons to question the validity of their time data, particularly time marks within the first few minutes of resuscitation efforts.^{2,3} Problems with time data are typically not acknowledged in published reports—including the present article—potentially leading to questionable conclusions. This issue is even more important in the COVID-19 era.

The present article states that no increased delays in early intervention were detected with the COVID-19 surge—that is, that the incidence of delayed chest compressions and delayed defibrillation did not change significantly. It is difficult to imagine how this could actually be true. The data are improbable to start with (>60% of first defibrillations in 2 minutes or less?),^{2,4} reflecting the artificially short intervals reported from the GWTG-R registry. Delays in initiating treatment are unavoidable because COVID-19 protocols require staff to don personal protective equipment before entering the patient's room. Quantifying these delays is essential to show the true impact of the pandemic on resuscitation practices and to evaluate approaches to shorten the delays. The International

Liaison Committee on Resuscitation has proposed an approach to lessen personal protective equipment delays for defibrillation specifically.⁵ Much better time data will be needed to evaluate the effectiveness of this and other approaches to speed emergency interventions. Several promising possibilities exist to improve acquisition of time data during codes; the research community should undertake a committed effort to find a solution.

ARTICLE INFORMATION

Affiliation

None.

Disclosures

None.

REFERENCES

1. Chan PS, Spertus JA, Kennedy K, Nallamothu BK, Starks MA, Girotra S. In-hospital cardiac arrest survival in the United States during and after the initial novel coronavirus disease 2019 pandemic surge. *Circ Cardiovasc Qual Outcomes*. 2022;15:e008420. doi: 10.1161/CIRCOUTCOMES.121.008420
2. Kaye W, Mancini ME, Truitt TL. When minutes count—the fallacy of accurate time documentation during in-hospital resuscitation. *Resuscitation*. 2005;65:285–290. doi: 10.1016/j.resuscitation.2004.12.020
3. Kobayashi L, Lindquist DG, Jenouri IM, Dushay KM, Haze D, Sutton EM, Smith JL, Tubbs RJ, Overly FL, Foggie J, et al. Comparison of sudden cardiac arrest resuscitation performance data obtained from in-hospital incident chart review and in situ high-fidelity medical simulation. *Resuscitation*. 2010;81:463–471. doi: 10.1016/j.resuscitation.2010.01.003
4. Hunt EA, Walker AR, Shaffner DH, Miller MR, Pronovost PJ. Simulation of in-hospital pediatric medical emergencies and cardiopulmonary arrests: highlighting the importance of the first 5 minutes. *Pediatrics*. 2008;121:e34–e43. doi: 10.1542/peds.2007-0029
5. Perkins GD, Morley PT, Nolan JP, Soar J, Berg K, Olasveengen T, Wyckoff M, Greif R, Singletary N, Castren M, et al. International liaison committee on resuscitation: COVID-19 consensus on science, treatment recommendations and task force insights. *Resuscitation*. 2020;151:145–147. doi: 10.1016/j.resuscitation.2020.04.035

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