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Letter to the Editor

Physician-discretion DNIC (Do Not Initiate Compressions) in the COVID era



To the Editor:

The COVID-19 pandemic has forced the medical community to make unprecedented decisions while continuing to provide patient care. Another such decision is whether patients and families may insist upon CPR in circumstances in which patient survival is extremely unlikely. CPR with chest compressions is an aerosolizing procedure, which exposes numerous healthcare workers in close quarters, risking harm to providers.¹

Physician commitment to the ethical principle of beneficence is not endless. Imagine a scenario in which a deadly disease emerged in which the only treatment for patients was that physicians remove their thumbs and suture them to their patients. In such a situation, wherein patient benefit is directly contingent on physician harm, it would be ethical to give physicians a voice in making that decision. In a more real-world example, the AHA has issued interim guidelines during the COVID era which attempt to balance the need to rapidly provide high quality ACLS while protecting rescuers from exposure.²

The provision of ACLS to COVID-19 patients comes at increased risk to providers, while likely conferring diminished benefits to patients, dramatically shifting the risk/benefit balance. Prior to COVID, the likelihood of return of spontaneous circulation (ROSC) after in-hospital cardiac arrest (IHCA) was 70%, with a 25% rate of survival to discharge.³ Shao et al. recently published the first study of IHCA during the COVID era, analyzing results of 136 hospitalized patients who experienced cardiac arrest at a tertiary care medical center in China.⁴ They found that ROSC was achieved in only 13% of patients, while only 2.9% survived for 30 days. Subgroup analyses, though limited by small numbers, suggested that initial shockable rhythm correlated with survival. While this is a small single-center trial that requires replication, it demonstrates convincingly the dramatically poorer survival of COVID patients with IHCA.

The confluence of abysmal outcomes after IHCA and the markedly higher risk to providers forces us to reconsider whether initiation of DNR status at the discretion of the physician (even over family objection) is both ethical and necessary to protect healthcare personnel.

Some have suggested adopting a universal DNR policy during this pandemic.⁵ While guaranteeing equity, this removes autonomy from the treating team and would be impossible to tailor to specific patient circumstances.

We propose that the treating physician initiate advanced planning conversations in all hospitalized patients with COVID-19 and explain the extreme unlikelihood of survival after IHCA. If a family insists on CPR, the treating attending should consult with a second attending not on the treatment team. If they agree that the likelihood of survival of IHCA is extremely low, due to patient demographics, comorbidities and disease severity, they will institute a Do Not Initiate Compressions (DNIC) order, even over surrogate objection. This order is distinct from the traditional DNR order since it permits rhythm assessment and defibrillation for a VT/VF arrest, in which the risk/benefit balance is different: IHCA outcomes are better and defibrillation is not an aerosolizing procedure. We propose that these measures remain in place until the pandemic is declared over.

Conflict of interest

None.

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¹ Edelson DP, et al. *Circulation*. 2020;doi:<https://doi.org/10.1161/CIRCULATIONAHA.120.047463>.

² *ibid*.

³ Ofoma UR, Basnet S, Berger A et al. Trends in Survival After In-Hospital Cardiac Arrest During Nights and Weekends. *J Am Coll Cardiol*. 2018;71(4):402.

⁴ Shao, F., Xu, S., Ma, X., et al. In-hospital cardiac arrest outcomes among patients with COVID-19 pneumonia in Wuhan, China. *Resuscitation*. June 2020: Volume 151.18–23.

⁵ Cha AE. Hospitals consider universal do-not-resuscitate orders for coronavirus patients. *The Washington Post*. March 25, 2020. <https://www.washingtonpost.com/health/2020/03/25/coronavirus-patients-do-not-resuscitate/>. Accessed May 3, 2020.