

No More Resuscitation a la Carte: Towards a Universal, Simple, Ethical, and Medically Sound Code Status Ordering

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ABSTRACT: Cardiopulmonary resuscitation is a commonly performed intervention in clinical medicine and determining a patient's code status is paramount. "Limited/partial code" has crept into medical practice throughout the years and has become an acceptable practice. We describe here a tiered, clinically sounds and ethical code status ordering that includes the main elements of resuscitation, helps with establishing goals of care, eliminates the use of "limited/partial code," facilitates shared decision-making with patients and surrogates and is easy to communicate to healthcare team members.

KEY WORDS: code status; goals of care; resuscitation

Cardiopulmonary resuscitation (CPR, basic life support, advanced cardiac life support [ACLS]) is a commonly performed intervention in clinical medicine. Determining a patient's code status/resuscitation status is paramount given the emergent nature of such an intervention. It is also one of the medical interventions where the interaction of medical and ethical aspects is emphasized. Guidelines for resuscitation have been published and updated by the American Heart Association for the last few decades. "Limited code" or "partial code" (1) (where certain components of the ACLS bundle are held because of the patient/surrogate decision maker request) has crept into medical practice and has become an accepted approach to resuscitation.

We describe here a code status ordering that incorporates key elements of emergency medical response and provides a foundation for goals-of-care discussion. It is simple enough to facilitate shared decision-making with patients and surrogates in addition to education of, and communication to, team members. It is ethical, medically sound and has no use of "limited/partial" code.

Gremmels and Bagchi (2) have rigorously demonstrated the clinical futility of "limited/partial code" (lack of evidence-based effectiveness, risk of medical errors and difficulty in communication) and the ethical concerns about it (misapplication of respect to patient autonomy, violation of the foundational ethical principle of "first do no harm," and inconsistency with the tenets of shared decision-making). "Limited/partial code" also lacks physiologic basis and biological plausibility, and it seems to have risen from misconceptions around resuscitation and concerns about violating patients' autonomy allowing it to creep into medical practice and become "the emperor's new clothes." We strongly agree with Gremmels and Bagchi (2) that in a cardiac arrest situation, there are only two options that are ethical and medically sound: Attempting to revive the patient by performing CPR/ACLS (full code) or not intervening and

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allowing natural death (do not resuscitate [DNR] or do not attempt resuscitation [DNAR]). There should be no place for “limited/partial code” in clinical practice.

While endotracheal intubation for respiratory failure and outside of a cardiac arrest situation is not strictly a “code status” issue, it is an intervention that is often needed as emergently as CPR/ACLS and in patients who might not be able to participate in decision-making. Hence, we support including it in code status order. “Comfort measures only” or “comfort care” status (where care is focused on giving comfort and relieving distressing symptoms) need to be clearly known and communicated to all members of the care team and that is why we support including it in the code status order.

Life-sustaining treatments (other than endotracheal intubation/mechanical ventilation) for noncardiac arrest situation are often discussed with code status. These include interventions such as noninvasive ventilation, vasopressors, and cardiac pacing. We elected not to have a separate order for these interventions for the following reasons:

- 1) The list of interventions that can be considered life-sustaining is exhaustive and can include many other interventions such as fluid resuscitation, antibiotics, high-flow oxygen, dialysis, and emergent surgery to name a few. It can be very daunting to discuss all these interventions with patients in the setting of a usual clinical encounter.
- 2) These interventions, for the most part, have high benefit/risk ratio and most patients would not object to them in the course of comprehensive treatment. They are also not as emergently needed as CPR/intubation, which would allow time to discuss them with the patients and their surrogates, otherwise, defaulting to what is medically reasonable.
- 3) Having too many choices can be confusing to patients and surrogates and can lead to situations similar to “limited/partial” code where elements of care that should be bundled are chosen individually leading to choices that are clinically ineffective and potentially harmful (e.g., not using vasopressors for septic shock in a patient who is full code).

That lead us to create a simple, tiered code status orderset that includes resuscitation status, endotracheal intubation status in noncardiac arrest and whether the patient is receiving comfort measures only. The options in our code status order set are:

- 1) Full code.
- 2) DNR/comprehensive care (intubation for respiratory failure is allowed).

- 3) DNR/DNI/comprehensive care (no intubation for respiratory failure).
- 4) Comfort care.

Do not escalate care (3) can be a useful modifier in cases where the surrogate(s) are having difficulty withdrawing life-sustaining treatments as the emotional impact of withholding treatment might be lower than that of withdrawing treatment. It might require a change in the code status, and it can only be applied to options 2 and 3.

Code status determination is key to establishing goals of care and end-of-life planning. It is important to remember that a code status order does not determine what code status is appropriate for a certain patient. Code status is not an isolated part of the patient care and the conversation to determine it should take into account the patient overall health condition, prognosis, and their values and preferences regarding prolonging life versus quality of life. It is also important to readdress it when the patient’s health status changes or when other interventions are decline by the patient or surrogates (an anuric patient with renal failure who declines renal replacement therapy should not be full code).

Our experience in changing the order set at our health system followed a similar path to that described by Gremmels and Bagchi (2). After successful implementation at our local hospital, the new proposed order set was discussed in several of our interdisciplinary system-level clinical councils with input from clinicians, ethicists, and regulatory officers. Adoption of this change was followed by a systemwide multifaceted educational campaign of all stakeholders. There were several questions and clarifications that were addressed but the feedback from providers was overwhelmingly positive given rationality of the order set and the elimination of the “limited/partial code” option. It was helpful that the state of Indiana Physician Order for Scope of Treatment (4) (Indiana’s version of Physician Order for Life-Sustaining Treatment) nearly matched our proposed code status order in the tiered approach to resuscitation. The education continued after updating the systems policy and the EMR order entry for code status and quickly became well integrated into our clinical practice with no more mentioning of the

“limited/partial code.” Finally, the Emperor is wearing clothes.

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REFERENCES

1. Rafiq A, Ullah W, Naglak M, et al: Characteristics and outcomes of patients with partial do not resuscitate orders in a large community hospital. *Cureus* 2019; 11: e6048
2. Gremmels B, Bagchi S: Resuscitation a la carte. *Chest* 2021; 160:1140–1144
3. Jacobsen J, Billings A: Easing the burden of surrogate decision making: The role of a do-not-escalate-treatment order. *J Palliat Med* 2015; 18:306–309
4. Indiana Physician Order for Scope of Treatment. Available at: Indianapost.org. Accessed December 7, 2022