Response

To the Editor:

We appreciate the interest and constructive comments of Zheng et al to our research letter on the clinical impact of the new definition of precapillary pulmonary hypertension (PH). We also welcome the opportunity to discuss potential treatment strategies for patients with mild pulmonary hemodynamic impairment, which has been addressed by the authors. In their letter, Zheng et al focused on potential changes in targeted PH therapy in those patients who either had precapillary PH according to previous criteria, but not according to the proposed new definition, or the other way around.

We do not doubt the importance to address this issue and agree that the new proposed definition of precapillary PH might lead to treatment changes in some patients, even though it has been emphasized by the 6th World Symposium for PH that the clinical practice for targeted medical PH treatment should not change. Because most pivotal trials included patients with pulmonary arterial hypertension with mean pulmonary arterial pressure ≥25 mm Hg and pulmonary vascular resistance ≥3 Wood units, only patients with hemodynamic values above these cutoff points should be considered for targeted PH therapy.

We believe, therefore, that the major advantage of the proposed new definition of precapillary PH is a different one. As shown in our study, the hemodynamic and clinical profiles of patients fulfilling the new definition represent more the subjects with early forms of pulmonary vascular disease and poor prognosis and may allow a better selection of patients for close follow up and future clinical trials. Having seen the development of detrimental pulmonary vascular disease especially in risk conditions for PH such as systemic sclerosis, this may be considered as a major step forward towards more effective and more personalized medicine in this field.

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References


Partial Code in Cardiac Arrest

Should It Be Allowed as an Exception?

To the Editor:

We appreciate the ethical analysis in CHEST (Sept 2021) by Gremmels and Bagchi concerning the theoretic and practical aspects of “partial codes” in cardiac arrest situations. Here we would like to share our reflections and opinions on this matter.

We recognize that Gremmels and Bagchi approached the ethical problem of partial code in cardiac arrest from a primarily consequentialist reasoning; in other words, a partial code is ethically unjustifiable because the clinical outcome is almost certainly hopeless, and the resulting harm is much more tangible than any potential benefit. However, we argue that under special circumstances, a partial code may be considered ethical to proceed. We would illustrate this in the following hypothetical case example.

Consider a 70-year-old man with underlying hypertrophic cardiomyopathy and who recently received...
a diagnosis of metastatic lung cancer. He was doing well in terms of physical function and still enjoying an active lifestyle. He was admitted to the ICU because of septic shock caused by pyelonephritis, and his condition was stabilized after antibiotic treatment. Given his metastatic lung cancer, advance care planning discussion was initiated, and a do not intubate order was signed. Here comes the “partial code” dilemma: in case the patient, with underlying hypertrophic cardiomyopathy, experiences a witnessed cardiac arrest because of malignant arrhythmia, can he choose to receive defibrillation, chest compression, and bag-mask ventilation, but not endotracheal intubation? In this case, the likelihood to achieve a return of spontaneous circulation and meaningful survivorship with these limited resuscitation efforts is higher than the case discussed by Gremmels and Bagchi. The limited resuscitation may be considered a reasonable option, while respecting the patient’s wish not to prolong suffering should the initial resuscitation measures fail. From a consequentialist point of view, the “partial code” is justifiable because the anticipated benefit outweighs the harm. In contrast, a binary choice between full code and do not attempt resuscitation may force the patient to choose either a potentially lingering death (once he is intubated and started on mechanical ventilation) or no effective treatment for life-threatening arrhythmia (even if it is readily treatable).

In any scenario, communicating and establishing the goals of care are of utmost importance. It is crucial to consider the clinical context in understanding and implementing the do not intubate or do not attempt resuscitation order or any form of advanced care planning indeed. Although we concur with their criticism of the partial code problem, our hypothetical case demonstrates that partial code in cardiac arrest is reasonable in specific circumstances.

References

Response
To the Editor:
We thank Cheung et al for their letter regarding our article and appreciate the opportunity to comment on the scenario presented where a theoretic benefit to a modified code might be beneficial.

Their solution to the theoretic case study they describe is flawed by hindsight bias: it presupposes that the cause for cardiac arrest is known at the time of arrest and neglects the less likely but realistic possibility of pulmonary or cardiopulmonary arrest. Even with advanced notice that a patient may arrest from a quickly reversible cardiac arrhythmia, such as V-tach, the code team could be faced with a difficult-to-reverse arrhythmia with no possibility to provide airway protection because of the do-not-intubate order. Furthermore, a key challenge of non-binary code status orders is the need for the code team to interpret the order when they are working in a time-sensitive fashion to deliver the timely and effective advanced cardiac life support (ACLS) care. Their solution does not address the communication difficulties or the risk of violating the patient’s known wishes, which we point out in our article.

A better solution for their case would be for the patient to be full code so that he could receive appropriate resuscitation from a sudden arrhythmia while the care team and patient work together to address goals of care in an advanced care plan that would allow the patient to avoid languishing on a ventilator if that is inconsistent with his wishes. If the patient wants resuscitation to be attempted in the event of an arrest, then a clear plan of what to do with ventilation after arrest avoids the problems of a partial code.

For clarification, the conclusion in our article is based more on the duty to respect inherent dignity and autonomy of patients rather than consequentialism. Outcomes are certainly relevant in any ethical