

## Adult Extracorporeal Membrane Oxygenation Patient Selection During Coronavirus Disease 2019: The Value of a Review Panel During Coronavirus Disease 2019

### To the Editor:

We read with interest the foreword published in a recent issue of *Critical Care Medicine* by Bohman et al (1). These authors nicely went through a systematic approach to patient selection for adult extracorporeal membrane oxygenation (ECMO) including the use of prediction data, ethical considerations, anticipated quality of life and rehabilitation potential, and “multiconsultant decision making.” As a busy ECMO program in Boston, MA, one of the epicenters during the coronavirus disease 2019 (COVID-19) pandemic, we wholeheartedly agree with the authors in their team approach (2) and would emphasize that a formal approach to decision making is key for the appropriate use of this labor-intensive rescue therapy. Technology in 2020 during the COVID-19 pandemic has allowed for a readily accessible 24/7 cross-specialty critical care review panel in our program to decide on candidacy and appropriate resource utilization.

As the authors mention, “multiconsultant decision making” is invaluable to avoid consultant distress and bias. While the authors mention that a “trusted colleague” should be used for discussion, we would recommend that a formal review panel should be established to help make these decisions during COVID-19 to care for regions heavily impacted by this novel virus. This is particularly relevant during a pandemic where there is the potential for resource constraints and a high volume of potential candidates. A recent review gives guidance on creating institutional protocols to determine equitable and appropriate allocation of resources (3). The principles described would also be well-suited for use by a COVID ECMO Review Panel.

The ability to initiate a conference call and/or video discussion during COVID-19 for ECMO has proven to be a key factor for patient selection by our review panel during a time of social distancing. An initial secure page/text or contact through our ECMO app (application) with the patient’s identifying information allows each member of our review panel to access the electronic medical record in a remote location and then subsequently participate in a group chat allowing these providers to discuss the case in real time. Through technology and high-speed video communication, we can now see and interact with the care team immediately at the bedside. This form of communication can also extend into family-centered discussions by bringing in key family members if the decision is made to redirect away from mechanical escalation and instead continue with medical therapy or convert to palliative measures.

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This review panel at our institution is responsible for updating our patient criteria based on new information about this new and rapidly progressive disease. Group decisions are important and underscore the value and impact of shared learning to help decide on possible candidates.

Finally, as the authors mentioned a cross-specialty model of care allows for programs to work across department/division lines to optimize care for this new patient population. We have experience at our own institution and others have reported patients with multisystem organ involvement of COVID-19 such as myocarditis (4), cardiovascular disease, and acute kidney injury (5). This is critically important for patient selection but also device selection with the ability to offer cardiac, respiratory, and renal support through hybrid ECMO configurations. As an institution, our current review panel and response team consists of intensivists from anesthesiology, pulmonology, cardiology, emergency medicine, and cardiac surgery with ECMO specialists for patient selection, device selection, and ultimately cannulation.

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