Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Response

To the Editor:

We thank Paez et al for taking interest in our study reporting the effect of high-dose prophylactic anticoagulation (HPA) on thrombotic complications in critically ill COVID-19 patients.[1] The authors questioned the incidence of thrombotic complications and emphasized the bleeding risk associated with HPA.

Their comments raise several considerations. The incidence of thrombotic complications that we reported was consistent with most published studies on the same population.[2] Nevertheless, data on thrombotic complications of COVID-19 patients should be taken cautiously, because local protocols for screening for thrombotic complications differ widely among studies, as do the criteria for admission to the ICU. In addition, COVID-19 patients' clinical characteristics and management are highly heterogeneous and have changed in recent months: (i) patients have more co-morbidities and more medications (including anticoagulant and antiplatelet therapies at the onset of the disease), which may modify the balance between risk and benefit of HPA; (ii) the clinical management of severe COVID-19 has evolved with the early administration of corticosteroids and immunomodulators, including anti-IL-6 antibodies. Because inflammation plays a key role in the pathophysiology of COVID-19-related thrombosis,[3] the thrombotic risk may be significantly lower today, reducing the benefit of HPA; (iii) the timing of HPA administration is critical, and the benefit of HPA that was observed in the early inflammatory phase of the disease in our study may not be sustained once thrombo-inflammation decreases and may shift the balance toward an increased bleeding risk. We can only regret that only a few studies reported the timing of both thrombotic and bleeding events in the same cohort.

Moreover, the benefit of HPA on micro-thrombosis remains uncertain because such thrombosis involves not only coagulation but also the endothelium, platelets, and native and adaptive immune responses. This could explain why we did not observe a significant reduction in mortality in our study while the incidence of thrombotic complications was reduced.

In a constantly evolving situation, studies must be analyzed in their context to avoid erroneous conclusions.

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Rule of Double-Effect and Utilitarianism

Intensivist Perspectives

To the Editor:

We read with great interest the article by Bishop and Eberl[1] in *CHEST* (June 2021) that discussed the ethical challenges of unilaterally withdrawing life-sustaining treatments during crisis standards of care. As intensivists working with limited resources, we would like to share our views on two aspects: the rule of double-effect and utilitarianism.