



## Authors' reply

We thank all the research teams who have submitted letters in response to our frailty and COVID-19 paper.<sup>1</sup> This study has generated discussion in scientific journals, lay press, and social media. We welcome the opportunity to further discuss our methods and results.

Laurent, Darvall and colleagues, and Pareek and colleagues, all question the use of the Clinical Frailty Scale (CFS) as a tool for decision making during the COVID-19 pandemic. It was not our intention to promote the practice of basing treatment escalation plans on frailty status. In fact, we cautioned against the use of age alone in establishing treatment type.<sup>2</sup> However, in the UK, CFS scoring was recommended at the government level for triaging patients with COVID-19,<sup>3</sup> and so the exploration of the properties of the CFS in this context seemed timely and relevant. Use of frailty assessments in COVID-19 care is not exclusive to the UK; Rockwood and Theou<sup>4</sup> highlighted the need for all health-care professionals working with patients with COVID-19 to familiarise themselves with frailty assessment.

Laurent requests data on C reactive protein (CRP) in light of their work showing no relationship between CRP and mortality in COVID-19.<sup>5</sup> In contrast, we found that for a pre-specified threshold of CRP of 40 mg/L or more on admission, mortality was 31.9% compared with 15.0% if CRP was lower than 40 mg/L (n=1564; adjusted HR=2.61 [95% CI 1.97–3.45]; p<0.0001). Among those who died, median CRP was 115 (IQR: 63–191) compared with 69 (IQR: 29–140) among patients who survived. Our findings concur with those from other studies, suggesting admission CRP can guide the management of COVID-19.<sup>6</sup>

Thus, our data highlight various risk factors for poor outcome in patients admitted with COVID-19. We limited our data collection to factors initially

believed to influence prognosis. Subsequently, other important risk factors have emerged; for example, obesity and ethnicity. All these data improve our understanding of COVID-19 and might improve its management. However, risk factors should not be used in isolation, but rather should inform care discussions with patients and families. With a second wave of COVID-19 in the UK and many European countries, these discussions might once again become a common part of clinical practice.

Since our paper,<sup>1</sup> other studies of frailty and COVID-19 have been reported. Those that made use of a similar prospective, sequential data collection, and follow-up approach have also found associations between frailty and a poor outcome.<sup>7</sup> We acknowledge that there are many unanswered questions around this topic. Our study was an international collaborative effort, and in this spirit, we are happy to work with any future studies that will enhance our understanding of COVID-19 and frailty.

We declare no competing interests.

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