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## Elucidating the effect of geriatric parameters on COVID-19 outcomes for older adults with cancer



A diagnosis of active cancer is associated with a higher risk of severe COVID-19 than no diagnosis.<sup>1</sup> Increasing age and comorbid conditions are also independently associated with severe COVID-19.<sup>2</sup> Therefore, older adults with cancer are disproportionately disadvantaged during the pandemic (although many studies to support this statement were done before the availability of effective COVID-19 vaccines). In this context, COVID-19 might challenge the equal and evidence-based management of older adults with cancer. The International Society of Geriatric Oncology has issued specific consensus recommendations to mitigate such risk<sup>3</sup> and advocates for the prioritisation of older people with cancer in the roll-out of vaccination programmes at a global level.<sup>4</sup>

Although the linkage of global health measures to cancer registry datasets is being increasingly investigated, geriatric assessments (rather than chronological age alone) are crucial to a better understanding of the effect of the pandemic on outcomes for older adults with cancer because they are highly heterogeneous.<sup>5</sup> In *The Lancet Healthy Longevity*, Arielle Elkrief and colleagues provide evidence of the association of a composite measure of frailty with COVID-19 severity and mortality in a large analysis of individuals diagnosed with cancer aged who are aged 60 years and older and included in the COVID-19 and Cancer Consortium (CCC19) study.<sup>6</sup>

In this analysis, the investigators correlated a CCC19 Geriatric Risk Index, accounting for age, Charlson Comorbidity Index, and Eastern Cooperative Oncology Group Performance Status with COVID-19 outcomes. Consistent with trends observed in more frail individuals in the general COVID-19 patient population, the study documented poorer outcomes in patients with high Geriatric Risk Index than in those with standard risk, including COVID-19 severity and mortality at 30 days.

The CCC19 Geriatric Risk Index certainly does not capture the full complexity of the global health of older adults with cancer, which should include additional domains such as functional performance, nutrition, cognition, mood, polypharmacy, and social support, and, if available, these should be measured with objective parameters.<sup>7</sup> Although these parameters are

not usually captured in cancer registry and large trial datasets, the investigators provide compelling evidence supporting the integration of such parameters into studies involving older individuals with cancer and provides first proof of the possibility to derive detailed measures of frailty from existing data.

These findings have key implications to better inform both individual patient management and public health initiatives. At the individual level, identification of frailty in older patients (with cancer allows timely multidisciplinary interventions to address geriatric impairments and minimise adverse outcomes and maintain the benefits of anticancer therapy and quality of life in this population, even during the pandemic. These interventions can involve not only adapting systemic and locoregional cancer therapy options on the basis of risk stratification, but also the instigation of holistic multidisciplinary input able to maximise overall health before, during, and after anticancer treatment.<sup>3</sup> These considerations are crucial also in the context of the positive effect of integrated oncogeriatric care on the safety of systemic anticancer therapy recently shown in older patients with cancer in large, randomised studies.<sup>8,9</sup>

At population level, the findings of this study are important to better inform mitigation risk strategies aiming to protect the most vulnerable individuals in the general population. Because there is increasing concern on the longer-term effect of physical activity restrictions, social isolation, and inability to access health care for older adults during the pandemic,<sup>10</sup> the identification of frailty might represent a solution to stratify public health measures, such as physical distancing and infection control, on the basis of the risk of adverse COVID-19 outcomes.<sup>3</sup> Moreover, these results might be relevant to direct the provision of specialised multi-disciplinary services and telehealth options within communities. Importantly, they might also represent a unique opportunity to inform the roll-out of vaccination programmes and prioritise the most vulnerable segments of the cancer patient population.<sup>4</sup>

However, some aspects of managing cancer in older adults during the pandemic still warrant investigation. Elucidating the effect of frailty on anticancer treatment

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decisions in older adults with cancer during the pandemic would provide insight into the challenges of providing equitable and evidence-based cancer treatments in this population. Longer-term data from the CCC19 study would also be valuable to determine the impact of the pandemic on oncological outcomes, which would be important to better inform discussions with patients in the context of this increased burden of competing risks of morbidity and mortality. Finally, this dataset represents a unique opportunity to investigate the effect of the implementation of vaccination strategies on COVID-19 severity and mortality on oncological outcomes in this population, in which the interplay of ageing and vaccine immune response in the context of cancer diagnosis and treatment is still unclear. Answering these questions will be crucial to improve outcomes for older adults with cancer as SARS-CoV-2 moves from pandemic to endemic.

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