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## COVID-19 in patients with cancer

Lennard Lee and colleagues<sup>1</sup> investigated the associations of different tumour types and patient demographics with COVID-19 prevalence in patients with cancer in the UK as part of the UK Coronavirus Cancer Monitoring Project (UKCCMP). We would like to bring to the readers' attention several methodological concerns that might undermine the validity of the findings.

First, the study does not include some details about the cancer, such as whether incident or recurrent cancers were included and how cancer type was defined for individuals with multiple cancers. Additionally, it is important to know the type and duration of cancer treatment because these can affect immune response, and subsequently, susceptibility to COVID-19. The type and duration are also important because the control group was established earlier than the UKCCMP cohort and therefore they might differ in terms of treatment protocols. Furthermore, because the UKCCMP enrolls patients with cancer and COVID-19 without tracking COVID-19 incidence, an analysis of COVID-19 prevalence would be more appropriate than an analysis of COVID-19 risk.

Second, the proportions of the breast and prostate cancer for both the UKCCMP and Office for National Statistics (ONS) cohorts were underestimated because calculations did not use only individuals at risk (women for breast cancer and men for prostate cancer) as a denominator. Although a very small number of men could have been diagnosed with breast cancer, it would be more appropriate to focus on breast cancer in women, which would have then show similar proportions in the UKCCMP (143 [32.1%] of 445) and the ONS data (46 109 [33.5%] of 137 844). For prostate cancer, the accurate proportions are 114 (19.2%) of 595 for UKCCMP and 41 200 (28.4%) 145 034 for ONS

data. Thus, analyses of COVID-19 prevalence stratified by sex would be more appropriate for breast and prostate tumours, as well as tumours of the female and male reproductive systems.

Third, the authors mentioned that the management of patients with cancer and COVID-19 was directed by the patient's clinician team. Although COVID-19 has promptly and drastically changed how medicine is practised, cancer care still could differ across hospitals and regions. Most importantly, the risk of morbidity and mortality from COVID-19 is not uniform across the UK population,<sup>2</sup> with a substantially lower COVID-19 mortality rate in Wales than in England. Additionally, there is vast geographical variation in cancer type incidence.<sup>3</sup> Therefore, if the UKCCMP has these data, the authors should have investigated the associations of different tumour types with COVID-19 prevalence by region.

Fourth, some other factors that might influence the outcomes of COVID-19 such as its severity and COVID-19-specific treatment as well as cancer immunotherapy and timing of immunotherapy should be accounted for in the future studies.

We declare no competing interests.

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- 1 Lee LYW, Cazier J-B, Starkey T, et al. COVID-19 prevalence and mortality in patients with cancer and the effect of primary tumour subtype and patient demographics: a prospective cohort study. *Lancet Oncol* 2020; **21**: 1309–16.
- 2 UK Office for National Statistics. Characteristics of those dying from COVID-19. March, 2020. <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsinvolvedinmarch2020#characteristics-of-those-dying-from-covid-19> (accessed Oct 14, 2020).

- 3 Cancer Research UK. Cancer incidence. March, 2020. <https://www.cancerresearchuk.org/health-professional/cancer-statistics/incidence#heading-Four> (accessed Oct 14, 2020).