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## Distinguishing between direct and indirect consequences of covid-19

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## **CANCER MORTALITY DURING COVID-19**

# Distinguishing between direct and indirect consequences of covid-19

Jonine D Figueroa, Paul M Brennan, Evropi Theodoratou, Michael T C Poon, Karin Purshouse, Farhat V N Din, Kai Jin, Ines Mesa-Eguiagaray, Malcolm G Dunlop, Peter S Hall, David Cameron, Sarah H Wild, Cathie L M Sudlow

Analysing trends in cause specific excess deaths provides useful information on the consequences of the covid-19 pandemic. Lai and colleagues call for real time weekly data on cause specific mortality as these data are currently delayed in England, Wales, and Northern Ireland. In England, over 25% of all deaths are registered more than one week after death, and around 10% registered more than two weeks after death. Death registrations including cause of death are reported weekly in Scotland.

Cancer and cardiovascular diseases are common causes of death in the United Kingdom. Using the National Records Scotland report on 27 May 2020, we examined the percentage difference in crude numbers of deaths in 2020 compared with the average for 2015-19 by calendar week for cancer and cardiovascular deaths. We observed a peak in excess deaths from these causes in week 14 (28% excess for cancer and 36% for cardiovascular disease), about four weeks after the first covid-19 case in Scotland was detected (1 March 2020) and before the 80% peak excess all cause mortality at weeks 15-16. By week 21, numbers of cancer and cardiovascular deaths were similar to previous years, but numbers of deaths from all causes remained around 17% higher.

Given limited testing, a short term increase in deaths due to cancer and cardiovascular disease might have been partly due to undetected covid-19 infection. 6 In addition, the adverse effects of changes in NHS referral and diagnostic pathways and reductions in healthcare interventions might have contributed to these excesses. Delayed access and presentation to healthcare services with supervening emergencies such as malignant bowel obstruction, myocardial infarction, and stroke might have resulted in suboptimal outcomes. Fewer deaths related to cardiovascular disease earlier in 2020 might be due to a milder influenza season. 78 We need dynamic tracking of mortality along with detailed analyses to assess the effects of changes in health services and health seeking behaviours compared with direct susceptibility to covid-19.

Competing interests: None declared.

Full response at: https://www.bmj.com/content/369/bmj.m1735/rr.

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