The BMJ

Cite this as: *BMJ* 2022;376:o254<http://dx.doi.org/10.1136/bmj.o254>

Published: 28 January 2022

Covid-19: unravelling the conundrum of omicron and deaths

Covid deaths in the UK are at their highest since February 2021 despite omicron being less severe than previous variants. **Gareth Iacobucci** investigates why

Gareth Iacobucci

Confidence is growing among experts and ministers in the UK that omicron is milder than previous variants of SARS-CoV-2, and politicians and scientists alike are increasingly bullish that the worst of the covid-19 pandemic is behind us.^{1,2} At the same time, the number of people dying from covid in the UK is higher than it has been since February 2021.

How high are the current figures?

Daily deaths (within 28 days of a positive test by date of death) have regularly exceeded 250 in recent weeks.³ This is some way short of the UK's worst daily death toll, which peaked at 1359 on 19 January 2021. But this year's peak of 276 deaths, on 17 January 2022, was the highest daily total since 23 February 2021, when 288 deaths were recorded.

The media often use figures of deaths by date reported. But David Spiegelhalter, chair of the Winton Centre for Risk and Evidence Communication at the University of Cambridge, told *The BMJ* that using the date of death was more accurate because data were not returned at weekends, creating a reporting lag.

Are covid deaths being overestimated?

One theory put forward by sceptics throughout the pandemic is that, because the government's covid death figures are based on total deaths from any cause within 28 days of a positive covid test, the number of people dying from covid has been overestimated. But the numbers don't back this up, as highlighted by *The BMJ*'s columnist David Oliver and Spiegelhalter, among others.^{4,5} If anything, the government data have underestimated the true number of deaths since the start of the pandemic.

Using the government's way of counting covid deaths shows that a total of 155 040 people died from covid up to 27 January 2022. In contrast, according to data from the Office for National Statistics (ONS)—which are based on cases where covid is mentioned on death certificates and so are considered to be more reliable—176 813 people have died from covid.

In the latest week for which data are available, whether we look at government or ONS data, the trends in mortality are broadly similar and show that deaths are higher than they have been for some time.

ONS data show that in the week ending 14 January 2022, with omicron now the dominant variant, 1382 deaths were registered in England and Wales, up 50% on the previous week. This is slightly lower than the government figure (1621 deaths in the week to 14 January) but is still the highest weekly figure from ONS since the week ending 12 March 2021, when 1501 covid deaths were registered.

Could high case numbers be behind the high death rates?

Despite the high proportion of the population already vaccinated and omicron appearing to be less severe than previous variants, one potential reason why deaths are currently so high is the infectiousness of omicron, which has driven high case rates over the past few months. While the virus itself might be less severe, the sheer volume of infections has meant that many people are being admitted to hospital, including those not admitted primarily for covid.

Spiegelhalter said that omicron was “both milder and more prevalent,” producing “some novel trends.”

“First, of registered deaths that involve covid, the share that covid is ‘contributing to,’ rather than being a direct cause, has risen,” he said. “Usually, this share falls when there is a lot of virus around, but we are seeing the opposite pattern here, presumably because the variant is milder.”

“Second, we know that nearly half those in hospital are ‘incidental’ cases in which covid is not the main diagnosis, and so presumably there will be more deaths of people who just happen to have tested positive, and so covid should not appear on the death certificate.”

Spiegelhalter explained the impact of this change on the data being collected regarding covid deaths. “This would probably lead to a divergence between the dashboard count of deaths within 28 days of a positive test and the ONS's count of deaths involving covid,” he said. “These two counts have been rather well matched for some time, but there are early signs that the daily reports may be overcounting due to including incidental deaths.”

What about deaths not from covid?

The ONS data illustrate Spiegelhalter's point that the proportion of people dying with covid is rising. These figures show that in the week ending 14 January 2022 covid was not the primary cause of death in 23% (312) of the 1382 deaths recorded, even though it may have been a contributory factor. In contrast, this proportion was only 16% in November 2021, when omicron had only just emerged.⁶ And it was lower still, at around 10%, in January 2021 when alpha was dominant.

Do hospital data shed any light on this?

Data on covid patients in hospital show a similar picture to the figures on covid deaths. Of the 14 588 beds occupied by patients with confirmed covid-19 on 18 January, 52% (7605) were being treated primarily for covid-19⁷—a noticeable drop from 74% (4148 of 5585 patients) on 1 December 2021.

However, Kevin McConway, emeritus professor of applied statistics at the Open University, says that caution is warranted when looking at these figures. He emphasised that, although the dominance of omicron coincided with a fall in the proportion of beds occupied by patients who were being treated primarily for covid, we need to be careful when interpreting the data. He also highlighted that the current level of almost a quarter of covid related deaths not being primarily due to covid had occurred before and had fluctuated depending on the overall level of covid deaths at the time.

“It could have nothing to do with omicron, except indirectly because of the infectivity of omicron causing infections to rise a great deal,” he told *The BMJ*. “When there are a lot of infected people out there, there will be a lot of infected people coming into hospital for non-covid reasons, but they will be reported as covid patients.

“Also, if there are a lot of patients in the hospital with covid—even if not being primarily treated for it—there are going to be more nosocomial infections. All of this is likely to worsen in winter simply because there will be more patients being admitted for other reasons.”

Correction: We amended this article on 31 January 2022 to update several figures in paragraph 2 and to explain the reporting lag.

- 1 Omicron “plainly milder”; new measures not needed, UK’s Johnson says. Reuters. 3 Jan 2022. <https://www.reuters.com/world/uk/uks-johnson-will-continue-same-path-tackling-covid-2022-01-03/>
- 2 Rayner G, Levy M, Hymas C. Fourth covid jab: we can’t vaccinate the planet every six months, says JCVI chief. *Telegraph* 2022 Jan 3. <https://www.telegraph.co.uk/news/2022/01/03/fourth-covid-jab-cant-vaccinate-planet-every-six-months-says>
- 3 Gov.uk. Deaths in United Kingdom. <https://coronavirus.data.gov.uk/details/deaths>
- 4 Oliver D. David Oliver: Mistruths and misunderstandings about covid-19 death numbers. *BMJ* 2021;372:n352. doi: 10.1136/bmj.n352 pmid: 33568449
- 5 Spiegelhalter D. The trouble with coronavirus death tolls: daily mortality figures don’t reflect the true numbers. *Politico*. Jan 2021. <https://www.politico.eu/article/coronavirus-deaths-statistics-data-cases-accuracy>
- 6 Coronavirus (COVID-19) latest insights: Deaths. 25 Jan 2022. <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/articles/coronaviruscovid19latestinsights/deaths>
- 7 NHS England. Covid-19 hospital activity. Primary diagnosis supplement (spreadsheet). 20 Jan 2022. <https://www.england.nhs.uk/statistics/wp-content/uploads/sites/2/2022/01/Primary-Diagnosis-Supplement-20220120.xlsx>

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