Covid-19: Hospital admissions rise in England amid fears of new variant and waning immunity

Mun-Keat Looi

The number of hospital admissions for covid-19 is rising across England, latest figures show. Experts say waning immunity, together with a rise in indoor mixing and the appearance of a new omicron subvariant are likely to blame.

In the week ending 30 July 2023, the hospital admission rate for covid-19 increased to 1.97 per 100 000, up from 1.47 per 100 000 the previous week. Overall numbers, however, remain low compared with the acute phase of the pandemic between 2020 and 2021.

“Overall levels of admission remain extremely low and we are not seeing a similar increase in intensive care admissions,” said Mary Ramsay, head of immunisation at the UK Health Security Agency, in a statement. She emphasised that vaccination remains the best way to protect against severe disease and hospital admission, and urged anyone eligible to take up the booster dose when offered.

Lawrence Young, a virologist at the University of Warwick, told the MailOnline that the rise in cases is “probably because of waning protective immunity—it’s some time since people received their last booster jabs or were previously infected—and to increased mixing in enclosed, poorly ventilated spaces.”

Paul Hunter, professor of medicine at University of East Anglia, wrote in The Conversation, “Immunity against infection, either from immunisation or following infection, is very short lived—only a matter of months. As covid heads towards being endemic it will likely still cause an average of around 80 000 new infections each day in England for years to come. “Poor weather over the past month has meant more indoor mixing including during events such as university degree congregations and increased cinema attendance.”

Media speculation has linked a rise in case numbers to a spike in cinema going amid the hype surrounding the release of the Barbie and Oppenheimer movies. The highest hospital admission rate for covid-19 was observed in the south west of England with a 100% increase in cases in Devon in the seven days leading up to 29 July. Derbyshire and Surrey also saw case numbers increase 100%, with rises also seen in Cornwall, Cumbria, Darlington, Somerset, and Staffordshire.

“The daily number of new positive tests and the proportion of tests coming back positive have been increasing since the end of June,” said Hunter. “New hospital admissions and the number of beds occupied by covid patients have also increased compared with levels seen at the end of June.”

He said that the Zoe Health app—through which users voluntarily enter their symptoms—suggests that the current wave may already have peaked. Zoe estimates case numbers rose by near 200 000 in July last month from 606 656 predicted cases on 4 July to 785 980 on 27 July.

Mortality figures from the Office for National Statistics for the week ending 28 July show little change in the number of deaths from covid-19 compared with previous weeks. In England and Wales, 63 of 9384 (0.7%) of recorded deaths mentioned novel coronavirus, accounting for 0.7% of all deaths—seven fewer than the previous week.

The World Health Organization reported that there were over one million new covid cases and more than 3100 deaths between 3 and 30 July 2023. The highest numbers of new cases reported within the 28 day period were from South Korea (751 484, a 96% rise, with a 5% rise in deaths).5

Eris variant

Genetic sequencing indicates that a new form of covid-19—EG.5 or “eris” as it has been dubbed by some scientists—is gaining ground in many countries, including the UK and US.

According to UKHSA, EG.5 could represent as much as 14.6% of all covid cases in the UK. Genomic surveillance data from the US Centres for Disease Control and Prevention indicate that cases attributable to EG.5 were close to doubling over the past two weeks. There are no indications so far that the subvariant causes more disease or is more severe than previous variants and symptoms remain largely similar to previous omicron variants.

EG.5 is related to the XBB variants of the omicron variant that remain dominant in most parts of the world. Eric Topol, from the Scripps Research Institute, said that the spike protein of EG.5 has over 15 new mutations compared with two in the previous XBB.1.5 (“kraken”) subvariant. One mutation, known as FLip, leads to a reduction in neutralising antibodies. “This certainly suggests [the] evolution of the virus will be more troubling than [EG.5] and we can expect it to show further growth advantage in the weeks ahead,” he wrote on Substack.

“The new covid boosters, directed at XBB.1.5, are closely aligned, should be effective vs severe covid.” Topol wrote on X (formerly Twitter). He pointed out, however, that rollout of a booster vaccine targeting XBB.1.5 is overdue, which could have consequences for dealing with the rise in cases.

WHO is currently tracking several SARS-CoV-2 variants, including two variants of interest—XBB.1.5 and XBB.1.6.
and XBB.1.16. It has seven variants “under monitoring,” including their descendent lineages which include EG.5.

Clarification: We amended Eric Topol’s quote on 16 August 2023 to make the meaning clearer. Topol’s original sentence was, “This certainly suggests this evolution of the virus will be more troubling than EG.5.1 and we can expect it to show further growth advantage in the weeks ahead.”

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