The BMJ

Cite this as: *BMJ* 2021;374:n1802
<http://dx.doi.org/10.1136/bmj.n1802>
 Published: 15 July 2021

Winter pressure: RSV, flu, and covid-19 could push NHS to breaking point, report warns

Elisabeth Mahase

Outbreaks of respiratory syncytial virus (RSV) this coming autumn and flu in the winter could be around twice the magnitude of a normal year and may overlap with another peak in covid-19 infections, the Academy of Medical Sciences has warned.¹

The academy formed an advisory group including 29 leading experts and 57 members of the public at the request of the UK's chief scientific adviser, Patrick Vallance, to forecast the greatest risks to health this winter and beyond.

The group's modelling predicts a peak of covid-19 infections in summer 2021. It shows that although the timing and magnitude of the peak are uncertain and mortality may be less severe than last winter, the rise in infections will put pressure on the health service and lead to an increase in long covid. Additionally, more infections increase the possibility of new and more dangerous variants.

On top of this, the group highlighted that recent easing of restrictions had led to a summer surge of infections typically seen in the winter, such as RSV, bronchiolitis, parainfluenza, and rhinovirus.

In Australia and South Africa, RSV—a major cause of hospital admission and mortality in young children—has been on the rise after lockdown periods that had few RSV cases. Modelling data from the US have also shown that the loss of population immunity to RSV among young children could create a larger susceptible population that is potentially likely to have a larger outbreak this winter, the report said.

Synergy

Respiratory infections can “act synergistically,” meaning that potential interactions between SARS-CoV-2 and other respiratory viruses could increase disease severity.

“An initial infection may increase the severity of subsequent infection or can transiently boost innate immunity offering some protection,” the report said. “Early data suggest influenza A leads to an increased susceptibility to SARS-CoV-2 and more severe disease. The wider circulation of other respiratory viruses will apply selection pressures on SARS-CoV-2 and could lead to the emergence of new variants of concern.”

The group has warned that urgent action is needed to stop a “lethal triple mix” of covid-19, flu, and RSV pushing an already depleted NHS to breaking point this winter. Another covid-19 wave, as well as multiple subsequent outbreaks between summer 2021 and spring 2022, could prevent the NHS from catching up with the backlog of routine care.

At the end of May 2021 NHS England reported that the number of patients waiting for treatment had

exceeded 5.3 million, with more than 330 000 waiting more than 52 weeks.² Because of infection control measures the NHS will be operating with a reduced number of beds—which raises significant concerns, as winter bed occupancy in the NHS regularly exceeded 95% even before covid-19.

Staffing is also a major problem, as the NHS currently faces a staff shortage of 84 000 and a GP shortage of 2500. By the coming winter, healthcare staff will have been responding to a prolonged pandemic for over 18 months, and fatigue and burnout will be prominent.

The report set out several recommendations and considerations that the government could act on to minimise these issues. These included:

- Maximising the speed and uptake of coronavirus vaccination in all eligible age groups, while preparing for possible booster vaccines in priority groups and flu vaccination later in the year;
- Increasing the ability of people with covid-19 to self-isolate, through financial and other support;
- Boosting the capacity of staff and beds in the NHS, increasing testing capacity for covid-19 and flu, and adequately resourcing primary care;
- Providing clear guidance about precautions—such as the use of face coverings, ventilation, and physical distancing—that people and organisations can take to protect themselves and others; and
- Ensuring that all measures implemented to tackle covid-19 and help the country recover will reverse the unequal impact of the pandemic on certain groups, as the economic impact from the pandemic and repeated lockdowns will likely have longer term negative health effects on groups that already experience structural inequalities.

1 Covid-19: Preparing the future. Looking ahead to winter 2021-22 and beyond. 15 Jul 2021. <https://acmedsci.ac.uk/covid-19-preparing-for-the-future-report>.

2 Mahase E. Covid-19: Doctors warn of “disconnect” between NHS pressure and lifting of restrictions. *BMJ* 2021;374:n1762. doi: 10.1136/bmj.n1762 pmid: 34253541