COVID-19 weekly update

12th February 2021

**clinical management**

**Title:** A simple nomogram for predicting failure of non-invasive respiratory strategies in adults with COVID-19: a retrospective multicentre study

The Lancet Digital Health | 8th February 2021

Non-invasive respiratory strategies (NIRS) including high-flow nasal cannula (HFNC) and non-invasive ventilation (NIV) have become widely used in patients with COVID-19 who develop acute respiratory failure. However, use of these therapies, if ineffective, might delay initiation of invasive mechanical ventilation (IMV) in some patients. This study aimed to determine early predictors of NIRS failure and develop a simple nomogram and online calculator that can identify patients at risk of NIRS failure.

The authors have developed a nomogram and online calculator that can be used to identify patients with COVID-19 who are at risk of NIRS failure. These patients might benefit from early triage and more intensive monitoring.

Full article: [A simple nomogram for predicting failure of non-invasive respiratory strategies in adults with COVID-19: a retrospective multicentre study](https://www.thelancet.com/action/showPdf?pii=S2589-7500%2820%2930316-2)

**Title:** Peginterferon lambda for the treatment of outpatients with COVID-19: a phase 2, placebo-controlled randomised trial

The Lancet Respiratory Medicine | 5th February 2021

This study aimed to investigate the safety and efficacy of peginterferon lambda in the treatment of outpatients with mild-to-moderate COVID-19.

The authors found that peginterferon lambda accelerated viral decline in outpatients with COVID-19, increasing the proportion of patients with viral clearance by day 7, particularly in those with high baseline viral load. Peginterferon lambda has potential to prevent clinical deterioration and shorten duration of viral shedding.

Full article[: Peginterferon lambda for the treatment of outpatients with COVID-19: a phase 2, placebo-controlled randomised trial](https://www.thelancet.com/action/showPdf?pii=S2213-2600%2820%2930566-X)

**Title:** Common asthma treatment reduces need for hospitalisation in COVID-19 patients, study suggests

NIHR Oxford Biomedical Research Centre | 8th February 2021

Early treatment with a medication commonly used to treat asthma appears to significantly reduce the need for urgent care and hospitalisation in people with COVID-19, researchers at the University of Oxford have found.

The STOIC study found that inhaled budesonide given to patients with COVID-19 within seven days of the onset of symptoms also reduced recovery time. Budesonide is a corticosteroid used in the long-term management of asthma and chronic obstructive pulmonary disease (COPD).

The findings from 146 people – of whom half took 800 micrograms of the medication twice a day and half were on usual care – suggests that inhaled budesonide reduced the relative risk of requiring urgent care or hospitalisation by 90% in the 28-day study period. Participants allocated the budesonide inhaler also had a quicker resolution of fever, symptoms and fewer persistent symptoms after 28 days.

Findings from the phase 2 randomised study, which was supported by the NIHR Oxford Biomedical Research Centre (BRC), are published on the medRxiv pre-print server.

Further detail: [Common asthma treatment reduces need for hospitalisation in COVID-19 patients, study suggests](https://oxfordbrc.nihr.ac.uk/common-asthma-treatment-reduces-need-for-hospitalisation-in-covid-19-patients-study-suggests/)

Full research paper: [Inhaled budesonide in the treatment of early COVID-19 illness: a randomised controlled trial](https://www.medrxiv.org/content/10.1101/2021.02.04.21251134v1.full.pdf) *[please note, this article is a preprint and has not been certified by peer review. It reports new medical research that has yet to be evaluated and so should not be used to guide clinical practice]*

**Title:** Association between Clinical Frailty Scale score and hospital mortality in adult patients with COVID-19 (COMET)

The Lancet Healthy Longevity | 9th February 2021

During the COVID-19 pandemic, the scarcity of resources has necessitated triage of critical care for patients with the disease. In patients aged 65 years and older, triage decisions are regularly based on degree of frailty measured by the Clinical Frailty Scale (CFS). However, the CFS could also be useful in patients younger than 65 years.

This study aimed to examine the association between CFS score and hospital mortality and between CFS score and admission to intensive care in adult patients of all ages with COVID-19 across Europe.

The results of this study suggest that CFS score is a suitable risk marker for hospital mortality in adult patients with COVID-19. However, treatment decisions based on the CFS in patients younger than 65 years should be made with caution.

Full article: [Association between Clinical Frailty Scale score and hospital mortality in adult patients with COVID-19 (COMET): an international, multicentre, retrospective, observational cohort study](https://www.thelancet.com/action/showPdf?pii=S2666-7568%2821%2900006-4)

**Title:** The effect of tocilizumab on mortality in hospitalized patients with COVID-19: a meta-analysis of randomized controlled trials

European Journal of Clinical Pharmacology | 2nd February 2021

This meta-analysis analysis of randomized controlled trials and the impact of tocilizumab aimed to provide a summary of the overall effect of tocilizumab on the risk of mortality among patients with Covid-19.

Within this meta-analysis the authors have shown that the administration of tocilizumab in hospitalized patients with COVID-19 did not reduce the risk of all-cause mortality in this patient population, though with significantly reduced likelihood of progression to mechanical ventilation and/or all-cause mortality.

As this analysis did not discover a clear benefits in mortality as an endpoint with the administration tocilizumab in hospitalized patients with COVID-19, the authors argue that their findings should be confirmed with larger randomized controlled trials with longer follow-up.

Full document: [The effect of tocilizumab on mortality in hospitalized patients with COVID-19: a meta-analysis of randomized controlled trials](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7853160/pdf/228_2021_Article_3087.pdf)

**Title:** Thousands more NHS patients to get life-saving COVID-19 treatment

Department of Health & Social Care | 11th February 2021

Thousands more NHS patients who are hospitalised due to COVID-19 will be able to receive the life-saving treatment tocilizumab, the government has announced.

The drug reduced the relative risk of death by 14% and reduced the time spent in hospital by 5 days when used for patients on oxygen and in addition to the corticosteroid dexamethasone.

The roll-out of this treatment could also contribute significantly towards reducing pressures on hospitals over the coming weeks and months.

Scientists discovered the drug was effective during the RECOVERY clinical trial, funded by the UK government through the National Institute for Health Research (NIHR) and UK Research and Innovation (UKRI).

Last month, the international clinical trial REMAP-CAP, also funded by the government, found that tocilizumab and sarilumab reduced the risk of death for patients when administered within 24 hours of entering intensive care.

The latest findings by RECOVERY, run by the University of Oxford, show a much larger group of hospitalised patients can also benefit from the drug if it is given to those outside of intensive care with oxygen deficiency and showing signs of worsening – meaning potentially thousands more lives could be saved.

Full detail: [Thousands more NHS patients to get life-saving COVID-19 treatment](https://www.gov.uk/government/news/thousands-more-nhs-patients-to-get-life-saving-covid-19-treatment)

**Title:** Researchers Investigate What COVID-19 Does to the Heart

JAMA | 10th February 2021

This Medical News article discusses reports of myocardial injury and myocarditis among patients with COVID-19.

Full detail: [Researchers investigate what Covid-19 does to the heart](https://jamanetwork.com/journals/jama/fullarticle/2776538)

**Title:** Malnutrition and Nutritional Care of COVID-19 Patients in Hospitals during the first wave of the pandemic

British Association for Parenteral and Enteral Nutrition | 8th February 2021

BAPEN, a charitable association that raises awareness of malnutrition and works to advance the nutritional care of patients and those at risk from malnutrition in the wider community, has published a report into the malnutrition and nutritional care of patients with Covid-19 during the first wave of the pandemic.

In addition to the community survey which they conducted last year, BAPEN also undertook a survey of hospital based healthcare professionals to better understand the nutritional care and challenges of patients with COVID-19 they faced during the first wave of the coronavirus pandemic.

The survey was designed to investigate challenges in delivering nutritional care in ICU and HDU, and on general wards. It covers issues identifying malnutrition risk, the barriers to delivering good nutritional care on the wards, and nutritional strategies, as well as particular challenges relating to discharge.

Further detail: [BAPEN Hospital COVID-19 Survey of Health Care Professionals](https://www.bapen.org.uk/news-and-media/news/868-bapen-hospital-covid-19-survey-of-health-care-professionals)

Summary report: [Malnutrition and Nutritional Care of COVID-19 Patients in Hospitals during the first wave of the pandemic. A summary of the BAPEN Hospital COVID-19 Survey of Health Care Professionals](https://www.bapen.org.uk/pdfs/covid-19/summary-of-covid-19-hospital-survey.pdf)

**recovery**

**Title:** Long covid: WHO calls on countries to offer patients more rehabilitation

BMJ | 2021; 372: n405 | 10th February 2021

The World Health Organization has urged countries to prioritise rehabilitation for the medium and long term consequences of covid-19 and to gather information on “long covid” more systematically.

WHO has produced a standardised form to report clinical data from individual patients after hospital discharge or after their acute illness to examine the medium and long term consequences of covid-19. It has also set up technical working groups to build a consensus on the clinical description of what WHO now calls “the post-covid-19 condition” and to define research priorities.

Full detail: [Long covid: WHO calls on countries to offer patients more rehabilitation](https://www.bmj.com/content/372/bmj.n405)

Related: [Global covid-19 clinical platform case report form (CRF) for post covid condition (Post COVID-19 CRF)](https://www.who.int/publications/i/item/global-covid-19-clinical-platform-case-report-form-%28crf%29-for-post-covid-conditions-%28post-covid-19-crf-%29) | WHO

**Title:** The COVID-19 exit strategy—why we need to aim low

The Lancet Respiratory Disease | 11th February 2021

As we find ourselves in the second year of a global pandemic, the question on everyone's mind is: when will this end? Much of the narrative around the pandemic last year was that all hopes for a return to normal hinged on development of an effective vaccine. Against all precedent, going into 2021, the world had several vaccines with demonstrated efficacy against symptomatic COVID-19 in its armamentarium. Yet as this editorial discusses, a magic bullet they are not.

This piece looks at numerous issues and uncertainties surround the existing COVID-19 vaccines:

* We do not yet know the quality or length of protection the vaccines will provide and how effectively they will stop viral transmission.
* New variants of SARS-CoV-2 with mutations in key proteins threaten vaccine efficacy.
* Certain groups—eg, children, people with immunodeficiency, pregnant women, and elderly people—were not included, or were underrepresented, in vaccine trials, making the safety and efficacy in these groups less certain.
* Supply-chain constraints, pricing, and unequal vaccine procurement across countries mean that coverage across most, if not all, countries will remain below the level required for herd immunity—if such a level exists, another unknown.

We can say that vaccines will make an important contribution to returning life to normal, but they should be only one part of an exit strategy.
Full editorial: [The COVID-19 exit strategy—why we need to aim low](https://www.thelancet.com/action/showPdf?pii=S1473-3099%2821%2900080-3)

**Title:** SARS-CoV-2 variants and ending the COVID-19 pandemic

The Lancet | 11th February 2021

The COVID-19 pandemic has devastated health-care systems, shut down schools and communities, and plunged the world into an economic recession. While 2020 was a challenging year, 2021 looks to be difficult with the emergence of multiple variants of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). This comment piece suggests the race to vaccinate the world will need to respond to the pathogen's constant evolution to evade immunity and asks ‘what marks the path to the end of this pandemic’?

The article states that as high-income countries race to immunise their populations within months, they leave themselves vulnerable to SARS-CoV-2 evolving in other countries to a new lineage that vaccines might not protect well against. Hence, the end of the pandemic is only possible when vaccines that are effective against circulating variants are distributed equitably across the world. Global cooperation to ensure equity and responsiveness to local contexts is essential on the difficult path ahead to ending the COVID-19 pandemic.

Full article: [SARS-CoV-2 variants and ending the COVID-19 pandemic](https://www.thelancet.com/action/showPdf?pii=S0140-6736%2821%2900370-6)

**Title:** Poverty, health, and covid-19

BMJ | 2021; 372: n376 | 12th February 2021

Covid-19 does not strike at random—mortality is much higher in elderly people, poorer groups, and ethnic minorities, and its economic effect is also unevenly distributed across the population.

Exposure to infection is unequal. People in precarious, low paid, manual jobs in the caring, retail, and service sectors have been more exposed to covid-19 as their face-to-face jobs cannot be done from home. Overcrowded, poor quality housing in densely populated areas have often added to their increased risk. Poorer communities have also been more vulnerable to severe disease once infected because of higher levels of pre-existing illness. Increased rates of infection have led to greater loss of income linked to disruptions to work and job loss, but the immediate financial pressure of covid-19 has gone far beyond this.

The economic fallout is likely to be felt for years. Without concerted preventive action worse off families and communities will be disproportionately affected, increasing health inequalities in the UK and globally. This editorial states we must avoid reintroducing austerity measures to fix the economy, which would again fall heaviest on the most disadvantaged groups and communities, widening health inequalities still further. Instead, we must “build back fairer.”

Full editorial: [Poverty, health, and covid-19](https://www.bmj.com/content/372/bmj.n376)

**Title:** Digital Health During The Covid-19 Pandemic: Learning Lessons To Maintain Momentum

Patient Coalition for AI, Data and Digital Tech in Health |  February 2021

This report draws on research and case studies of good practice in digital health during the pandemic to offer policy recommendations to help ensure the UK capitalises on the potential of digital health to the benefit of patients, the NHS and the UK, after the crisis subsides.

The report highlights that uptake of digital health technologies has been limited, while patient experience of technologies including video conferencing and mobile apps has been mixed.

The report concludes that the UK must build on progress made to digitise the NHS during the pandemic rather than revert to pre-COVID service models and draw on good practice examples that have helped facilitate service improvements, such as virtual self-referral and clinician communication support.

Full detail: [Digital health during the Covid-19 pandemic: Learning lessons to maintain momentum](https://www.patients-association.org.uk/Handlers/Download.ashx?IDMF=59d296cb-2151-4e5a-add9-03d1e4991a5b)

**Infection control**

**Title:** COVID-19: Government procurement and supply of personal protective equipment

House of Commons Public Accounts Committee | 10th February 2021

This report studies the supply and procurement of personal protective equipment for NHS staff during the Covid-19 pandemic. It concludes that the Department of Health and Social Care must develop a better understanding of the needs of both NHS organisations and allied health and social care sectors.

Full report: [COVID-19: Government procurement and supply of personal protective equipment](https://committees.parliament.uk/publications/4607/documents/46709/default/)

See also: [Government wasted millions on poor quality PPE, spending watchdog finds](https://www.bmj.com/content/372/bmj.n399) | BMJ

**Title:** WHO backs Oxford vaccine 'even if variants present'

World Health Organisation | BBC News | 10th February 2021

The World Health Organization recommends using the vaccine developed by the University of Oxford and AstraZeneca even in countries tackling new variants of coronavirus.

Some new forms of the virus appear to make vaccines less effective. The WHO also says the vaccine can be used in people aged over 65, which some countries have advised against.

Spacing out the two doses, as is happening in the UK, makes the vaccine more effective, it advises.

The Oxford vaccine is seen as the "vaccine for the world" as it is cheap, can be mass produced and is stored in a standard fridge. However, it has attracted controversy about its effectiveness against new variants, whether it should be used in the elderly and how far apart the doses should be given, due to a lack of data.

Full detail: [WHO backs Oxford vaccine 'even if variants present'](https://www.bbc.co.uk/news/health-56011981)

WHO interim guidance: [Interim recommendations for use of the AZD1222 (ChAdOx1-S (recombinant)) vaccine against COVID-19 developed by Oxford University and AstraZeneca](https://www.who.int/publications/i/item/WHO-2019-nCoV-vaccines-SAGE_recommendation-AZD1222-2021.1)

**Title:** GPs receive funding boost to vaccinate housebound in NHS drive to protect most vulnerable

NHS England |  7th February 2021

The NHS will pay GPs an additional £10 for every COVID vaccination they deliver to someone who is housebound as part of the drive to protect the most vulnerable people as swiftly as possible.

Full detail: [GPs receive funding boost to vaccinate housebound in NHS drive to protect most vulnerable](https://www.england.nhs.uk/2021/02/funding-boost-to-vaccinate-housebound/)

**Title:** report of the Commission on Human Medicines Expert Working Group on COVID-19 vaccine safety surveillance

 Medicines and Healthcare products Regulatory Agency | 5th February 2021

The Medicines & Health Regulatory Agency (MHRA) has developed, and now has in place, a four-stranded approach to vigilance, which is summarised in this surveillance strategy.

Full report: [Report of the Commission on Human Medicines Expert Working Group on COVID-19 vaccine safety surveillance](https://www.gov.uk/government/publications/report-of-the-commission-on-human-medicines-expert-working-group-on-covid-19-vaccine-safety-surveillance/report-of-the-commission-on-human-medicines-expert-working-group-on-covid-19-vaccine-safety-surveillance)

**Title:** Pregnancy, Postpartum Care, and COVID-19 Vaccination in 2021

JAMA | 8th February 2021

This JAMA Insights review summarises the epidemiology of SARS-CoV-2 infection in pregnant and lactating women, its effects on perinatal outcomes, and compiles guidance from the CDC, FDA, and obstetrics-gynecology specialty organizations on the safety of coronavirus vaccines during pregnancy and while breastfeeding.

Full detail: [Pregnancy, Postpartum Care, and COVID-19 vaccination in 2021](https://jamanetwork.com/journals/jama/fullarticle/2776447)

See also: [COVID-19 Vaccination in pregnant and lactating women](https://jamanetwork.com/journals/jama/fullarticle/2776449) | JAMA Viewpoint

**Title:** Is Manaus the final nail in the coffin for natural herd immunity?

BMJ | 2021; 372: n394 | 12th February 2021

Many thought a second wave was impossible in Brazil’s Amazon because of the severity of the first. A second crisis has stunned the city of Manaus, and raises questions around a new variant and the likelihood of natural herd immunity as this BMJ Feature reports.

Full detail: [Is Manaus the final nail in the coffin for natural herd immunity?](https://www.bmj.com/content/372/bmj.n394)

**Title:** Factors associated with SARS-CoV-2 infection and outbreaks in long-term care facilities in England: a national cross-sectional survey

The Lancet Healthy Longevity | 11th February 2021

Outbreaks of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection have occurred in long-term care facilities (LTCFs) worldwide, but the reasons why some facilities are particularly vulnerable to outbreaks are poorly understood. This paper aimed to identify factors associated with SARS-CoV-2 infection and outbreaks among staff and residents in LTCFs.

The study found that half of LTCFs had no cases of SARS-CoV-2 infection in the first wave of the pandemic. Reduced transmission from staff is associated with adequate sick pay, minimal use of agency staff, an increased staff-to-bed ratio, and staff cohorting with either infected or uninfected residents. Increased transmission from residents is associated with an increased number of new admissions to the facility and poor compliance with isolation procedures.

Full paper: [Factors associated with SARS-CoV-2 infection and outbreaks in long-term care facilities in England: a national cross-sectional survey](https://www.thelancet.com/action/showPdf?pii=S2666-7568%2820%2930065-9)

**Title:** Protecting and supporting the clinically extremely vulnerable during lockdown

National Audit Office | 10th February 2021

This report looks at how effectively government identified and met the needs of clinically extremely vulnerable people to 1 August 2020. It only examines the support provided through the shielding programme and does not include wider support to CEV people, such as statutory sick pay. The report sets out:

• the inception of the shielding programme (Part One);
• identifying clinically extremely vulnerable people (Part Two);
• supporting clinically extremely vulnerable people (Part Three); and
• outcomes and lessons learned (Part Four).

 Report conclusions:

The shielding programme was a swift government-wide response to protect clinically extremely vulnerable people against COVID-19, pulled together at pace in the absence of detailed contingency plans. There was impressive initial support offered to many people, with food provided to just over 500,000 people.

The Department for Health and Social Care is confident that shielding has helped to protect CEV people and it is clear that many CEV people benefited from the support the Programme provided. However, given the challenges in assessing the impact of shielding on CEV people’s health, government cannot say whether the £300 million spent on this programme has helped meet its central objective to reduce the level of serious illness and deaths from COVID-19 across CEV people.

Full report: [Protecting and supporting the clinically extremely vulnerable during lockdown](https://www.nao.org.uk/wp-content/uploads/2021/02/Protecting-and-supporting-the-clinically-extremely-vulnerable-during-lockdown.pdf)

Report summary: [Protecting and supporting the clinically extremely vulnerable during lockdown](https://www.nao.org.uk/wp-content/uploads/2021/02/Protecting-and-supporting-the-clinically-extremely-vulnerable-during-lockdown-Summary.pdf)

**Title:** Effectiveness of Mask Wearing to Control Community Spread of SARS-CoV-2

JAMA | 10th February 2021

This JAMA Insights CDC review summarises accumulating evidence that mask wearing reduces spread of SARS-CoV-2 infection and that universal mandatory mask wearing policies reduce infections and deaths. The article emphasises face masks are one component of pandemic control measures, including physical distancing and handwashing, pending natural or vaccine-induced population immunity.

Full detail: [Effectiveness of mask wearing to control community spread of SARS-CoV-2](https://jamanetwork.com/journals/jama/fullarticle/2776536)

**Title:** SARS-CoV-2 transmission among children and staff in daycare centres during a nationwide lockdown in France: a cross-sectional, multicentre, seroprevalence study

The Lancet Child & Adolescent Health | 8th February 2021

The extent to which very young children contribute to the transmission of SARS-CoV-2 is unclear. We aimed to estimate the seroprevalence of antibodies against SARS-CoV-2 in daycare centres that remained open for key workers' children during a nationwide lockdown in France.

According to serological test results, the proportion of young children in our sample with SARS-CoV-2 infection was low. Intrafamily transmission seemed more plausible than transmission within daycare centres. Further epidemiological studies are needed to confirm this exploratory hypothesis.

Full article: [SARS-CoV-2 transmission among children and staff in daycare centres during a nationwide lockdown in France: a cross-sectional, multicentre, seroprevalence study](https://www.thelancet.com/action/showPdf?pii=S2352-4642%2821%2900024-9)

**Title:** Data modelling tool can forecast vulnerability of local populations to COVID-19

National Institute for Health Research | Journal of Epidemiology & Community Health | 11th February 2021

During the first wave of the COVID-19 pandemic in England, several population characteristics were associated with an increased risk of death from the virus, including age, ethnicity, income, deprivation, care home residence and housing conditions. Public health agencies wanted to understand how these vulnerability factors were distributed across their communities.

Researchers analysed 6,789 small areas in England and assessed the association between COVID-19 mortality in each area and five vulnerability measures relating to ethnicity, poverty, and prevalence of long-term health conditions, living in care homes and living in overcrowded housing. They developed a Small Area Vulnerability Index (SAVI) modelling tool, which forecasts the vulnerability of the local population to the virus.

Nationally, the UK government has already used the SAVI tool in its work on identifying the damage done to communities by the impact of COVID-19. Regionally Lancashire County Council, Durham Council and the Merseyside Resilience Forum have used the SAVI tool for planning their response to COVID-19.

Full detail: [Data modelling tool can forecast vulnerability of local populations to COVID-19](https://www.nihr.ac.uk/news/data-modeling-tool-can-forecast-vulnerability-of-local-populations-to-covid-19/26841)

Research paper: [How does vulnerability to COVID-19 vary between communities in England? Developing a Small Area Vulnerability Index (SAVI)](https://jech.bmj.com/content/jech/early/2021/02/04/jech-2020-215227.full.pdf)

**Title:** Children less likely to report fever, persistent cough, or appetite loss, large UK study finds

BMJ | 2021; 372: n408 | 10th February 2021

Young people aged five to 17 with covid-19 are less likely to report fever, persistent cough, or appetite loss than adults, according to a UK study of more than a million people.

The latest findings from the ongoing React-1 study, which involves swab testing more than 150 000 randomly selected people in England each month, found that symptoms varied with age. Researchers examined swab tests and questionnaires from between June 2020 and January 2021 and found that children aged five to 17 were more likely to suffer from headaches, while muscle aches and appetite loss were most common in people aged 18-54. Chills were linked with testing positive across all ages.

The study also found that around 60% of infected people did not report any symptoms in the week leading up to their positive test.

Authors concluded that more covid-19 cases in the community could be detected if additional symptoms such as chills, headache, appetite loss, and muscle aches were added to the UK testing criteria.

Full detail: [Children less likely to report fever, persistent cough, or appetite loss, large UK study finds](https://www.bmj.com/content/372/bmj.n408)

Related research: [Symptom reporting in over 1 million people: community detection of covid-19](https://imperialcollegelondon.app.box.com/s/t2ycf6kr0myu5l50cb77ccbl165z8wai)

**Title:** Surge testing to be deployed in further areas in connection to new variants

Department of Health and Social Care | 6th February 2021

The government has announced that more areas will have additional testing made available to control and suppress the spread of coronavirus (COVID-19) variants.  Additional surge testing and sequencing is being deployed to targeted areas around Worcestershire WR3, an area in Sefton PR9, and areas in Bristol and South Gloucestershire, where coronavirus (COVID-19) variants have been found.

Full detail: [Surge testing to be deployed in further areas in connection to new variants](https://www.gov.uk/government/news/surge-testing-to-be-deployed-in-further-areas-in-connection-to-new-variants?utm_medium=email&utm_campaign=govuk-notifications&utm_source=eb025dc3-3153-4394-b50a-75dc315dfe4b&utm_content=daily)

**Title:** Wider lockdown key to preventing Covid-19 surge if schools reopen

University College London | 10th February 2021

Wider restrictions must remain in place if schools reopen in March in order to keep the epidemic’s R number below 1 in the UK, a new UCL-led modelling study suggests.

The pre-print study, published on the site medRxiv, suggested that reopening schools to all pupils in some form on March 8 may lead to an increase in cases but that, if a broader lockdown remained, it was unlikely to cause the R rate to go above 1 and lead to the epidemic growing again.

The research team used a mathematical to assess the impact of various scenarios of schools reopening on March 8 on the spread of the SARS-CoV-2 virus, including the “Kent variant”, B.1.1.7. The model also accounted for a continued roll-out of vaccines.

They found that opening schools in a staggered fashion was likely to lead to a smaller increase in cases. Reopening only primary schools and exam-critical year groups in secondary school – Year 11 and Year 13 – would lead to the smallest increase, the researchers found. Reopening primary schools fully, but with secondary schools operating on a two-weeks-on, two-weeks-off rota system would also lead to a smaller increase than fully opening all schools at the same time.

The study’s modelling suggested that, if the wider lockdown were lifted on April 19, new infections would increase sharply and the R number would go above 1. However, the researchers said that a rapid vaccination programme could potentially prevent this, depending on the transmission-blocking properties of the vaccines.

The researchers found that if a full national lockdown were to continue throughout March and April, the R number – the number each person with Covid-19 infects on average - might stay at 0.8.

If schools reopened fully on March 8, the study simulations suggested that the R number would rise to about 0.9. The best schools reopening scenario – only opening primaries and exam-critical years in secondary school – would, the simulations suggest, keep the R number down to about 0.83.

Further detail: [Wider lockdown key to preventing Covid-19 surge if schools reopen](https://www.ucl.ac.uk/news/2021/feb/wider-lockdown-key-preventing-covid-19-surge-if-schools-reopen)

Research paper: [Modelling the impact of reopening schools in early 2021 in the presence of the new SARS-CoV-2 variant and with roll-out of vaccination against COVID-19](https://www.medrxiv.org/content/10.1101/2021.02.07.21251287v1.full.pdf)

*[please note, this article is a preprint and has not been certified by peer review. It reports new medical research that has yet to be evaluated and so should not be used to guide clinical practice]*

**Title:** The E484K mutation and the risks it poses

BMJ | 2021 ;372: n359 | 5th February 2021

The mutation E484K, first identified in the South African SARS-CoV-2 variant, has now been identified in the UK fast-spreading variant, prompting fears the virus is evolving further and could become resistant to vaccines. This BMJ analysis looks at what we know so far, asking:

* What do we know about the E484K mutation?
* Where has it been identified in the UK?
* Is this mutation something to worry about?
* Will vaccines work against these emerging variants?
* What is the UK doing to monitor the spread of variants?
* Is monitoring good enough?
* Is the UK sharing its capacity to carry out genomic testing?
* How can we stop new variants emerging?
* Will closing the UK borders help?

Full detail: [The E484K mutation and the risks it poses](https://www.bmj.com/content/372/bmj.n359)

**Title:** Understanding new variants of the virus

BBC News | 11th February 2021

The coronavirus variant first found in Kent could become the world's dominant strain, the head of the UK's genetic surveillance programme has predicted. Prof Sharon Peacock told the BBC's Newscast podcast the new variant has "swept the country" and "it's going to sweep the world, in all probability". She said her work sequencing variants of the virus could be required for at least 10 years.

The Kent variant has already been detected in more than 50 countries. It was first detected in September 2020 in south-east England and its rapid spread over the following months was cited as the reason for the introduction of new lockdown rules across the UK in January.

BBC Newscast podcast: **:** [Understanding new variants of the virus](https://www.bbc.co.uk/sounds/play/p096mc5k)

BBC News: [Kent virus variant 'on course to sweep world'](https://www.bbc.co.uk/news/uk-56019995)

**workforce wellbeing**

**Title:** Supporting the mental health of NHS staff

British Medical Association | MIND | 4th February 2021

NHS managers are to be helped to support the mental health of their employees with a guidebook by the charity MIND. The guide, funded by the BMA, comes as the NHS workforce continues to battle COVID-19 – its greatest challenge to date, it says.

It aims to provide practical advice and tips to help NHS leaders, and line managers, reduce mental health stigma, create mentally heathy cultures and support better mental health. It also provides information about the role of champions and peer supporters, given the high level of informal support given by peers across the NHS to support the mental health and wellbeing of their colleagues.

This guidance finds that the biggest obstacles to staff accessing support is the stigma associated with mental health and lack of senior leadership in creating cultures where mental health and wellbeing is prioritised and talked about openly.

These barriers are not unique to Covid-19, they have existed in the NHS for a long time. And whilst providing individuals with information about self-care, support for their mental health and access to effective interventions is essential, this can only be done alongside tackling the work-related causes of poor mental health within the NHS workforce if true systemic change can take place.

Full guidebook: [Supporting the mental health of NHS staff. The role of NHS leaders in reducing mental health stigma and creating mentally healthy cultures](https://cdn.mentalhealthatwork.org.uk/wp-content/uploads/2021/02/02114357/BMA-Stigma-Resource-.pdf)

See also: [MIND offers NHS managers mental health guide](https://www.bma.org.uk/news-and-opinion/mind-offers-nhs-managers-mental-health-guide)

**Title:** COVID-19: a heavy toll on health-care workers

The Lancet Respiratory Medicine | 8th February 2021

The COVID-19 pandemic has challenged and, in many cases, exceeded the capacity of hospitals and intensive care units (ICUs) worldwide. Health-care workers have continued to provide care for patients despite exhaustion, personal risk of infection, fear of transmission to family members, illness or death of friends and colleagues, and the loss of many patients.

 Sadly, health-care workers have also faced many additional—often avoidable—sources of stress and anxiety, and long shifts combined with unprecedented population restrictions, including personal isolation, have affected individuals' ability to cope.

This Comment piece suggests that to effectively support health-care workers—the greatest assets of our health-care systems—we must understand their challenges and needs. By acknowledging the commonality of psychological distress related to caring for patients with COVID-19, we can destigmatise work-related mental health issues and appropriately attend to the mental health needs of all health-care workers affected by the pandemic.

Full detail: [COVID-19: a heavy toll on health-care workers](https://www.thelancet.com/action/showPdf?pii=S2213-2600%2821%2900068-0)

**Title:** Healthcare staff must be given time to recuperate from pandemic, say leaders

BMJ | 2021; 372: n420 | 11th February 2021

The NHS must have a realistic and steady approach to resuming services disrupted by the pandemic that explicitly recognises the need for staff to recover, NHS leaders have said. In a letter to the prime minister leaders from the NHS Confederation, which represents healthcare providers, warned, “The NHS cannot recover its services at the same rate of increase when staff are so exhausted.”

The letter noted that there were over 5000 more patients with covid-19 in UK hospitals right now that at the peak of the first wave and that this was taking its toll on staff. The leaders called for sustained local mental health support for the NHS workforce beyond the end of March and for a long term, fully funded plan to increase staffing numbers.

The government must also set out clear expectations for the public on when routine procedures and other treatments would be fully back on line, they added.

Further detail: [Healthcare staff must be given time to recuperate from pandemic, say leaders](https://www.bmj.com/content/372/bmj.n420)

See also: [Letter to the Prime Minister about NHS recovery priorities](https://www.nhsconfed.org/-/media/Confederation/Files/Publications/Documents/Letter-to-the-Prime-Minister---NHS-recovery-priorities---080221-FINAL-PD.pdf) | NHS Confederation

**Title:** Coronavirus Disease 2019 Immediately Increases Burnout Symptoms in ICU Professionals: A Longitudinal Cohort Study

Critical Care Medicine | January 28th 2021

ICU professionals are at risk of developing burnout due to coronavirus disease 2019. This study assesses the prevalence and incidence of burnout symptoms and moral distress in ICU professionals before and during the coronavirus disease 2019 crisis.

The study found that the prevalence of burnout symptoms was 23.0% before coronavirus disease 2019 and 36.1% at postpeak time, with higher rates in nurses (38.0%) than in physicians (28.6%). Reversely, the incidence rate of new burnout cases among physicians was higher (26.7%) than nurses (21.9%).

Higher prevalence of burnout symptoms was observed in the postpeak coronavirus disease 2019 period for nurses, for professionals working overtime, and for professionals directly engaged with care for coronavirus disease 2019 patients. Physicians were more likely than nurses to develop burnout symptoms due to coronavirus disease 2019.

This study shows that overburdening of ICU professionals during an extended period of time leads to symptoms of burnout. Working long hours and under conditions of scarcity of staff, time, and resources comes at the price of ICU professionals' mental health.

Full article: [Coronavirus Disease 2019 immediately increases burnout symptoms in ICU professionals: A Longitudinal Cohort Study](https://journals.lww.com/ccmjournal/Abstract/9000/Coronavirus_Disease_2019_Immediately_Increases.95369.aspx)

**Health management**

**Title:** Blueprint launched for NHS and social care reform following pandemic

Department of Health and Social Care | 11th February 2021

The Health and Social Care Secretary, with the support of NHS England and health and care system leaders, will set out new proposals to build on the NHS response to the pandemic. The proposals will bring health and care services closer together to build back better by improving care and tackling health inequalities through measures to address obesity, oral health and patient choice.

The measures set out in a government white paper to be published on GOV.UK, will modernise the legal framework to make the health and care system fit for the future and put in place targeted improvements for the delivery of public health and social care. It will support local health and care systems to deliver higher-quality care to their communities, in a way that is less legally bureaucratic, more accountable and more joined up, by bringing together the NHS, local government and partners together to tackle the needs of their communities as a whole.

The measures include proposals to make integrated care the default, reduce legal bureaucracy, and better support social care, public health and the NHS. The reforms will enable the health and care sector to use technology in a modern way, establishing it as a better platform to support staff and patient care, for example by improving the quality and availability of data across the health and care sector to enable systems to plan for the future care of their communities.

Further detail: [Blueprint launched for NHS and social care reform following pandemic](https://www.gov.uk/government/news/blueprint-launched-for-nhs-and-social-care-reform-following-pandemic)

White paper: [Integration and Innovation: working together to improve health and social care for all](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/960548/integration-and-innovation-working-together-to-improve-health-and-social-care-for-all-web-version.pdf)

See also: [Kings Fund response to the Department of Health and Social Care's Integration and Innovation White Paper: a welcome shift towards collaboration](https://www.kingsfund.org.uk/press/press-releases/DHSC-integration-innovation-white-paper-response)

**other**

**Title:** Significant new SARS-CoV-2 variants may emerge during chronic infection

University College London | 5th February 2021

SARS-CoV-2 mutations similar to those in the B1.1.7 UK variant could arise in cases of chronic COVID-19 infection, where treatment over an extended period provides the virus multiple opportunities to evolve, finds research co-led by University College London.

Further detail: [Significant new SARS-CoV-2 variants may emerge during chronic infection](https://www.ucl.ac.uk/news/2021/feb/significant-new-sars-cov-2-variants-may-emerge-during-chronic-infection)

Related primary research: [SARS-CoV-2 evolution during treatment of chronic infection](https://www.nature.com/articles/s41586-021-03291-y_reference.pdf)

**Title:** Emergence of a Novel SARS-CoV-2 Variant in Southern California

JAMA | 11th February 2021

This research describes findings of sequencing and phylogenetic analyses of SARS-CoV-2 isolates from symptomatic patients cared for at Cedar-Sinai Medical Center in November-December 2020 during a regional surge in cases and hospitalisations.

Full detail: [Emergence of a Novel SARS-CoV-2 Variant in Southern California](https://jamanetwork.com/journals/jama/fullarticle/2776543)

Related editorial: [SARS-CoV-2 viral variants—tackling a moving target](https://jamanetwork.com/journals/jama/fullarticle/2776542) | JAMA

**Title:** Growing backlog of planned surgery due to covid-19

BMJ | 2021; 372: n339 | 9th February 2021

Covid-19 continues to have a severe effect on planned surgery in the UK, and dealing with the resulting backlog is a critical concern for the NHS. Data from NHS England show that the number of patients awaiting treatment hit a record high of 4.46 million in November 2020, with the number of referrals well below 2019 levels. The same data suggest that roughly 2.3 million people are currently waiting for surgical care.

This editorial states that clear and regular communication with patients regarding local plans and the likely timescale for their surgery remains critical. It argues that additional resources and greater capacity will not be enough. Profound changes to the way we work will be also be required, along with reform to create a leaner, more cost effective, and more flexible NHS able to make nimble decisions in response to crises such as covid-19.

We

[TRFT Library & Knowledge Service](https://www.trftlibraryknowledge.com/) aim to bring together the latest guidelines, research and news on Covid-19 through our [Covid-19 portal](https://www.trftlibraryknowledge.com/coronavirus.html). For daily updates on Covid-19 visit our '[Latest Health](https://trfthealthweeklydigest.wordpress.com/)' newsfeed, or use the hashtag [#covid19rftlks](https://twitter.com/hashtag/covid19rftlks?src=hashtag_click) to see our latest tweets on Covid-19 research, guidelines and news.

We also produce a range of subject-specific news feeds to ensure our clinical and professional teams stay up to date with developments in their work areas. Please visit our [website](http://www.trftlibraryknowledge.com/) for more information

<https://www.trftlibraryknowledge.com/health-newsfeeds.html>

Full editorial: [Growing backlog of planned surgery due to covid-19](https://www.bmj.com/content/372/bmj.n339)

Related: [Consultant-led referral to treatment waiting times data 2020-21](https://www.england.nhs.uk/statistics/statistical-work-areas/rtt-waiting-times/rtt-data-2020-21/) | NHS England