COVID-19 weekly update

22nd January 2021

**clinical management**

**Title**: Oxygen issues during COVID-19 pandemic

Healthcare Safety Investigation Branch | 15th January 2021

The Healthcare Safety Investigation Branch (HSIB) has provided notification into its investigation into oxygen issues during the COVID-19 pandemic. This follows a reference event whereby an acute hospital trust declared a major incident when demands on its oxygen supply led to patients being diverted to different hospitals and a need to transfer patients between clinical environments.

There has been an increased demand for oxygen gas in hospital wards during the COVID-19 pandemic. COVID-19 can cause severe inflammation of the lungs affecting a patient’s ability to breathe. As a result, an increased number of patients have required oxygen therapy within hospitals. Insufficient oxygen supply to seriously ill patients can have very severe consequences, including death.

The investigation will:

* Urgently investigate the reference event to better understand issues highlighted about limitations in piped oxygen supply to hospitals.
* Explore the role of engineering specialists and medical gasses committees in piped oxygen supply.
* Identify any safety action or learning that can assist in mitigating the risk to piped oxygen supplies, including urgently highlighting any actions that may assist NHS organisations in manging this risk.

Full detail: [Oxygen issues during COVID-19 pandemic](https://www.hsib.org.uk/investigations-cases/oxygen-issues-during-covid-19-pandemic/)

**Title**: RECOVERY trial closes recruitment to convalescent plasma treatment for patients hospitalised with COVID-19

University of Oxford | 15th January 2021

The RECOVERY trial has closed its trial of convalescent plasma treatment for hospitalised COVID patients after finding no overall mortality benefit.

The RECOVERY trial was established as a randomised clinical trial to test a range of potential treatments for COVID-19. Since May 2020, the RECOVERY trial has included a randomised comparison of convalescent plasma vs. usual care alone. Convalescent plasma has been widely used as a treatment for COVID-19 but to date there has been no convincing evidence of the effect of convalescent plasma on clinical outcomes in patients admitted to hospital with COVID-19.

The RECOVERY trial independent Data Monitoring Committee (DMC) held a routine meeting on Thursday 14 January to review the available safety and efficacy data.

On the advice of the DMC, recruitment to the convalescent plasma arm of the RECOVERY trial has now closed. The DMC saw no convincing evidence that further recruitment would provide conclusive proof of worthwhile mortality benefit either overall or in any pre-specified subgroup.

The DMC reviewed data on patients randomised to convalescent plasma vs. usual care. The preliminary analysis based on 1873 reported deaths among 10,406 randomised patients shows no significant difference in the primary endpoint of 28-day mortality (18% convalescent plasma vs. 18% usual care alone; risk ratio 1.04 [95% confidence interval 0.95-1.14]; p=0.34). Follow-up of patients is ongoing and final results will be published as soon as possible.

Recruitment to all other treatment arms – tocilizumab, aspirin, colchicine, and Regeneron’s antibody cocktail – continues as planned.

Full detail: [RECOVERY trial closes recruitment to convalescent plasma treatment for patients hospitalised with COVID-19](https://www.recoverytrial.net/news/statement-from-the-recovery-trial-chief-investigators-15-january-2021-recovery-trial-closes-recruitment-to-convalescent-plasma-treatment-for-patients-hospitalised-with-covid-19)

**Title**: artificial intelligence at the forefront of efforts to treat coronavirus patients

Department of Health and Social Care | 17th January 2021

Patients with COVID-19 are set to benefit from faster treatment, improved outcomes and shorter hospital stays thanks to the use of the latest artificial intelligence.

* AI imaging database will improve diagnosis of patients presenting with COVID-19 symptoms
* Increased speed and accuracy in diagnosis can lead to early medical intervention and save lives

NHSX has widened access to a National COVID-19 Chest Imaging Database (NCCID) to enable hospitals and universities in England to use the images to track patterns and markers of illness. The database can accelerate diagnosis of COVID-19, leading to a quick treatment plan and greater understanding of whether the patient may end up in a critical condition.

NHSX has brought together over 40,000 CT scans, MRIs and X-rays from more than 10,000 patients across the UK during the course of the pandemic.

Full detail: [AI at the forefront of efforts to treat coronavirus patients](https://www.gov.uk/government/news/ai-at-the-forefront-of-efforts-to-treat-coronavirus-patients)

**Title**: Clinical characteristics and outcomes of COVID-19 in haematopoietic stem-cell transplantation recipients: an observational cohort study

The Lancet Haematology | 19th January 2021

Haematopoietic stem-cell transplantation (HSCT) recipients are considered at high risk of poor outcomes after COVID-19 on the basis of their immunosuppressed status, but data from large studies in HSCT recipients are lacking. This study describes the characteristics and outcomes of HSCT recipients after developing COVID-19.

The study finds that recipients of autologous and allogeneic HSCT who develop COVID-19 have poor overall survival. These data emphasise the need for stringent surveillance and aggressive treatment measures in HSCT recipients who develop COVID-19.

Full document: [Clinical characteristics and outcomes of COVID-19 in haematopoietic stem-cell transplantation recipients: an observational cohort study](https://www.thelancet.com/action/showPdf?pii=S2352-3026%2820%2930429-4)

Related: [A rationale to prioritise vaccination of HSCT patients against COVID-19](https://www.thelancet.com/journals/lanhae/article/PIIS2352-3026%2821%2900008-9/fulltext)

**Title**: Accuracy of National Early Warning Risk Score (NEWS) 2 for predicting severe COVID-19 outcomes in patients

BMC Medicine | 21st January 2021

In the first systematic large-scale evaluation of the UK National Early Warning Risk Score (NEWS) 2 as a scoring system for predicting severe COVID-19 outcomes in patients, researchers at King’s College London have found poor-to-moderate accuracy for identifying patients at risk of being transferred to intensive care units (ICUs) or dying after 14 days of hospitalisation. Accuracy of predictions in short-term (three days) showed moderate success.

For people who are hospitalised with severe COVID-19, it is vital to quickly identify which patients may deteriorate and require transfer to an intensive care unit (ICU) for organ support or may die. NEWS2 is an early warning score that combines physiological parameters such as respiration rate, oxygen saturation, blood pressure and temperature. NEWS2 is currently used almost universally in UK NHS Trusts to identify which patients are at risk of deteriorating early.

The researchers evaluated how well patients’ NEWS2 scores measured at hospital admission anticipated who would have severe COVID-19 outcomes, which means either being transferred to ICU or dying. In all UK sites, combining NEWS2 and age to predict outcomes showed moderate success in the short-term (three days), but for poor-to-moderate success for medium-term (14 days) outcomes.

Full article: [Evaluation and improvement of the National Early Warning Score (NEWS2) for COVID-19: a multi-hospital study](https://bmcmedicine.biomedcentral.com/track/pdf/10.1186/s12916-020-01893-3.pdf) | BMC Medicine

See also: [NEWS2 evaluated for prediction of severe COVID-19 outcome in large international study](https://www.kcl.ac.uk/news/news2-evaluated-for-prediction-of-severe-covid-19-outcome-in-large-international-study) | Kings College London

**Title**: Sarilumab for COVID-19

National Institute for Health & Care Excellence | 20th January 2021

NICE has published a rapid evidence summary for Sarilumab for COVID-19**.** The summary includes 1 prepublication study only, with a small number of patients randomised to sarilumab. This means that the findings may change if further evidence becomes available.

Preliminary evidence from the REMAP‑CAP study has suggested that sarilumab is beneficial in adults with severe COVID‑19 who are critically ill and receiving respiratory or cardiovascular organ support in an intensive care setting. Sarilumab was given within about 24 hours of starting organ support.

It is possible that any benefit from sarilumab is seen only in the most severely ill patients given sarilumab soon after organ support is started, when any developing organ dysfunction may be more reversible. A related evidence review sets out the best available evidence on sarilumab for treating COVID-19.

Evidence summary: [COVID-19 rapid evidence summary: Sarilumab for COVID-19](https://www.nice.org.uk/advice/es34/chapter/Product-overview)

Evidence review: [Sarilumab for COVID-19](https://www.nice.org.uk/advice/es34/evidence/evidence-review-pdf-8962861213)

**Title:** The effect of early treatment with ivermectin on viral load, symptoms and humoral response in patients with non-severe COVID-19

E Clinical Medicine [published by The Lancet] | 19th January 2021

Ivermectin inhibits the replication of SARS-CoV-2 in vitro at concentrations not readily achievable with currently approved doses. There is limited evidence to support its clinical use in COVID-19 patients. The authors conducted a Pilot, randomized, double-blind, placebo-controlled trial to evaluate the efficacy of a single dose of ivermectin reduce the transmission of SARS-CoV-2 when administered early after disease onset.

Among patients with non-severe COVID-19 and no risk factors for severe disease receiving a single 400 mcg/kg dose of ivermectin within 72 h of fever or cough onset there was no difference in the proportion of PCR positives.

There was however a marked reduction of self-reported anosmia/hyposmia, a reduction of cough and a tendency to lower viral loads and lower IgG titers which warrants assessment in larger trials.

Full document: [The effect of early treatment with ivermectin on viral load, symptoms and humoral response in patients with non-severe COVID-19: A pilot, double-blind, placebo-controlled, randomized clinical trial](https://www.thelancet.com/action/showPdf?pii=S2589-5370%2820%2930464-8)

**Title**: Effect of Bamlanivimab as Monotherapy or in Combination With Etesevimab on Viral Load in Patients With Mild to Moderate COVID-19

JAMA | 21st January 2021

This randomized clinical trial compares the effects of 3 doses of bamlanivimab monotherapy (700 vs 2800 vs 7000 mg) vs combination bamlanivimab and etesevimab vs placebo on change in day 11 severe acute respiratory syndrome coronavirus 2 viral load in patients with mild to moderate coronavirus disease 2019 (COVID-19).

Key Points:

Questions:  What is the effect of early treatment with antispike neutralizing antibodies on severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) viral load in outpatients with mild to moderate coronavirus disease 2019 (COVID-19)?

Findings:  In the phase 2 portion of a randomized phase 2/3 clinical trial with 577 patients, there was no significant difference in change in viral load with 3 different doses of bamlanivimab monotherapy compared with placebo; treatment with a combination of bamlanivimab and etesevimab significantly decreased SARS-CoV-2 log viral load at day 11 compared with placebo (between-group difference, –0.57 [95% CI, –1.00 to –0.14], *P* = .01).

Meaning:  Treatment with bamlanivimab and etesevimab combination therapy, but not bamlanivimab monotherapy, resulted in a reduction in SARS-CoV-2 log viral load at day 11 in patients with mild to moderate COVID-19.

Full article: [Effect of Bamlanivimab as monotherapy or in combination with Etesevimab on viral load in patients with mild to moderate COVID-19. A Randomized Clinical Trial](https://jamanetwork.com/journals/jama/fullarticle/2775647)

**Title**: When demand is at capacity: latest ethics guidance

British Medical Association| January 2021

Resources are becoming increasingly restricted and choices of available care limited. The pandemic is fast-moving, relatively unpredictable and of uncertain duration. It is hoped there will be sufficient resources to meet all patients’ clinical needs but, if they become necessary, prioritisation and triage decisions will be professionally challenging.

This BMA guidance addresses some of the main ethical challenges likely to arise during this pandemic. The guidance on COVID-19, ethics and decision-making, includes withdrawing treatment, treatment allocation, resource, equality legislation and making reasonable adjustments.

Full detail: [COVID-19: ethical issues when demand for life-saving treatment is at capacity](https://www.bma.org.uk/advice-and-support/covid-19/ethics/covid-19-ethical-issues-when-demand-for-life-saving-treatment-is-at-capacity?utm_source=The%20British%20Medical%20Association&utm_medium=email&utm_campaign=12115817_NON%20MEMBER%20NEWSLETTER%20210121%20-%20ENGLAND&utm_content=Ethics%20guidance&dm_i=JVX,77OMH,24ZRDV,T8A3W,1)

**recovery**

**Title:** Working for babies: Lockdown lessons from local systems

First 1001 Days Movement | 19th January 2021

This report summarises the impacts on babies of COVID-19 and the Spring 2020 national lockdown. The report also explores how local systems responded to the challenges presented by COVID-19. It seeks to understand the factors which have shaped the response by services which support babies and their families. Most importantly, the report seeks to ensure that lessons are learned for the future of service provision for this age group.

The report presents a varied picture across the UK, with evidence that:

* “hidden harms” of the Spring lockdown on 0-2s were broad and significant, and experienced unevenly depending on family circumstances and background.
* historically inadequate or insecure funding, and a rising tide of need, has inhibited the ability of some services and areas to respond to the coronavirus crisis.
* there were often ‘baby blind-spots’ where babies’ needs were overlooked in policy, planning and funding.

The report also draws on a survey of 235 senior leaders of pregnancy and 0-2 services across the UK. The survey findings showed that:

* Almost all (98%) of the survey respondents said babies their organisation works with had been impacted by parental anxiety, stress or depression which was affecting bonding and responsive care.
* 78% of respondents were clear that the government in their nation had not done enough for the under 2s, creating this ‘baby blind-spot’.
* The majority (80%) said that some babies they work with had experienced increased exposure to domestic conflict, child abuse or neglect, with 29% saying many babies they work with had been impacted.

Full report: [Working for babies: Lockdown lessons from local systems](https://parentinfantfoundation.org.uk/wp-content/uploads/2021/01/210115-F1001D-Working-for-Babies-Report-FINAL-v1.0-compressed.pdf)

**TITLE:** GUIDANCE FOR HEALTHCARE PROFESSIONALS ON RETURN TO WORK FOR PEOPLE WITH LONG-COVID

Faculty of Occupational Medicine | 11th January 2021

This guidance is aimed at all healthcare professionals to assist them in facilitating the return to work of people who are unable to work due to long-COVID. The guidance has been developed alongside the NICE/RCGP/SIGN COVID-19 rapid guideline: [managing the long-term effects of COVID-19](https://www.nice.org.uk/guidance/ng188), published on 18th December 2020.

The FOM guidance focusses on functional impairment which may lead to obstacles to RTW. Importantly, where unable to find evidence for the guidance in the peer-reviewed literature, advice is based on general occupational health principles.

The peer-reviewed published literature on long-COVID is rapidly increasing; this guidance is a living document and will be reviewed on 31st March 2021.

Full document: [Guidance for healthcare professionals on return to work for people with long-COVID](https://www.fom.ac.uk/wp-content/uploads/longCOVID_guidance_03.pdf)

**Title**: Coronavirus: Long Covid

House of Commons Library | 15th January 2021

This briefing provides an overview of long Covid, the impacts of this condition and the development of clinical guidance and services for those affected. It also provides links to further reading and Parliamentary material.

Full document: [Coronavirus: Long Covid](https://researchbriefings.files.parliament.uk/documents/CBP-9112/CBP-9112.pdf)

**Title**: Epidemiology of post-COVID syndrome following hospitalisation with coronavirus: a retrospective cohort study

medRxiv | 15th January 2021

*This article is a preprint and has not been peer-reviewed. It reports new medical research that has yet to be evaluated and so should not be used to guide clinical practice.*

The epidemiology of post-COVID syndrome (PCS) is currently undefined. This study quantified rates of organ-specific impairment following recovery from COVID-19 hospitalisation compared with those in a matched control group, and how the rate ratio (RR) varies by age, sex, and ethnicity.

The study included 47,780 individuals (mean age 65 years, 55% male) in NHS hospitals in England with COVID-19 who were discharged alive by 31 August 2020, matched to controls on demographic and clinical characteristics.

The authors conclude that individuals discharged from hospital following COVID-19 face elevated rates of multi-organ dysfunction compared with background levels, and the increase in risk is neither confined to the elderly nor uniform across ethnicities. The diagnosis, treatment and prevention of PCS require integrated rather than organ- or disease-specific approaches. Urgent research is required to establish risk factors for PCS.

Full document: [Epidemiology of post-COVID syndrome following hospitalisation with coronavirus: a retrospective cohort study](https://www.medrxiv.org/content/10.1101/2021.01.15.21249885v1.full.pdf)

**Title**: Managing the long term effects of covid-19: summary of NICE, SIGN, and RCGP rapid guideline

BMJ | 2021; 372: n136 | 22nd January 2021

For a proportion of people covid-19 leads to long term effects that can have a significant impact on quality of life. According to the Office for National Statistics, around one in five people testing positive for covid-19 exhibit symptoms for a period of five weeks or more.

This presents challenges for determining best-practice standards of care. As yet, no commonly agreed clinical definition of long term covid-19 exists, nor a clear definition of treatment pathway.

To assist clinicians, the National Institute for Health and Care Excellence (NICE), the Scottish Intercollegiate Guidelines Network (SIGN), and the Royal College of General Practitioners (RCGP) have developed the “COVID-19 rapid guideline: managing the long term effects of COVID-19”. The guidance is summarised in this BMJ article.

Full detail: [Managing the long term effects of covid-19: summary of NICE, SIGN, and RCGP rapid guideline](https://www.bmj.com/content/372/bmj.n136)

Full guideline: [COVID-19 rapid guideline: managing the long term effects of COVID-19](https://www.nice.org.uk/guidance/ng188) | National Institute for Health and Care Excellence, Royal College of General Practitioners, Healthcare Improvement Scotland SIGN.

**Infection control**

**Title**: COVID-19 vaccines rolled out to people aged 70 years and over

Department of Health and Social Care | 18th January 2021

Millions of people aged 70 and over and those clinically extremely vulnerable to COVID-19 will be invited to get their vaccinations from Monday 18 January as the NHS begins roll out of the vaccines to the next 2 priority groups.

The NHS has so far been working to vaccinate the first 2 priority cohorts recommended by the Joint Committee on Vaccination and Immunisation (JCVI), which are care home residents and staff, and those aged 80 and over and frontline health and care staff.

Although vaccinating the first 2 groups will remain the priority, vaccination sites which have enough supply and capacity for vaccinating further people are allowed to offer vaccinations to the next 2 cohorts – those aged 70 and over and clinically extremely vulnerable people.

Full detail: : [COVID-19 vaccines rolled out to people aged 70 years and over](https://www.gov.uk/government/news/covid-19-vaccines-rolled-out-to-people-aged-70-years-and-over-from-today)

See also: [Priority groups for coronavirus (COVID-19) vaccination: advice from the JCVI](https://www.gov.uk/government/publications/priority-groups-for-coronavirus-covid-19-vaccination-advice-from-the-jcvi-30-december-2020)

**Title**: More than 4 million people receive first dose of COVID-19 vaccine in UK

Department of Health and Social Care | 19th January 2021

More than 4 million people in the UK have received their first dose of a COVID-19 vaccine. The NHS vaccinated a total of 4.06 million people between 8 December and 17 January, including more than half of those aged 80 and over and more than half of elderly care home residents.

This is more than double the number of vaccinations, per person per day, than any European country and is a significant step towards hitting the Prime Minister’s target of offering vaccines to the top 4 priority groups by the middle of February.

This group of around 15 million people accounts for 88% of COVID deaths, so vaccines will play a crucial role to saving lives and protecting the NHS.

Full detail: [More than 4 million people receive first dose of COVID-19 vaccine in UK](https://www.gov.uk/government/news/more-than-4-million-people-receive-first-dose-of-covid-19-vaccine-in-uk)

**Title**: UK Vaccination Policy

House of Commons Library | 21st January 2021

This briefing provides an overview of UK vaccination policy. It includes an introduction to the science of vaccination and covers UK vaccination programmes, as well as considering the response of the government to the UK's loss of the World Health Organization's measles elimination status.

Full document: [UK Vaccination Policy](https://researchbriefings.files.parliament.uk/documents/CBP-9076/CBP-9076.pdf)

**Title**: Vaccinating against covid-19 in people who report allergies

BMJ | 2021; 372: n120 | 18th January 2021

Use of the Pfizer-BioNTech covid-19 vaccine in people with a history of severe allergies was temporarily stopped in the UK after two healthcare workers experienced anaphylactic reactions in early December. The Medicines and Healthcare Products Regulatory Agency (MHRA) stated that “any person with a history of anaphylaxis to a vaccine, medicine, or food should not receive the Pfizer/BioNTech vaccine.”

However, MHRA revised its position on 30 December after careful consideration based on enhanced surveillance of over one million doses of the vaccine in the UK and North America. It found no evidence of an increased risk of anaphylaxis to the Pfizer-BioNTech vaccine among people with serious but unrelated allergy histories and advised that only people who had an allergic reaction to the first dose of this vaccine, or who previously had reactions to any of its components, should not receive it.

This editorial states that given that allergies are commonly reported, and public acceptance for a covid-19 vaccine seems to be waning, uptake of the Pfizer-BioNTech vaccine may be lower than hoped, particularly among patients with allergies. This may lead to covid-19 outbreaks, necessitating local lockdowns and hampering pandemic responses. Healthcare workers may also be reluctant to vaccinate people with any history of allergies. It is therefore essential that those planning and administering covid-19 vaccine programmes understand the evidence, as outlined in this editorial.

Full editorial: [Vaccinating against covid-19 in people who report allergies](https://www.bmj.com/content/372/bmj.n120)

**Title**: Allergic Reactions Including Anaphylaxis After Receipt of the First Dose of Pfizer-BioNTech COVID-19 Vaccine

JAMA | 21st January 2021

This JAMA Insights review provides clinical details of anaphylactic reactions reported to and verified by the CDC in the first week of use of the Pfizer-BioNTech COVID-19 vaccine in the US, December 14-23, 2020.

Full detail: [Allergic reactions including anaphylaxis after receipt of the first dose of Pfizer-BioNTech COVID-19 Vaccine](https://jamanetwork.com/journals/jama/fullarticle/2775646)

**Title**: Vaccinating Children against Covid-19 — The Lessons of Measles

New England Journal of Medicine | 20th January 2021

As the first SARS-CoV-2 vaccines are rolled out to the highest-risk groups, the current stage of the Covid-19 pandemic is pregnant with possibility. Vaccination could liberate us to return to school or work, celebrate holidays, eat in restaurants, travel, run marathons and the like. We look to vaccines to give us back our world.

Children back in classrooms, on football fields, and at birthday parties are essential elements of that normal world — and we need children to help us get there. Effective herd immunity will require pediatric vaccination.

This perspective piece states that measles vaccine story reminds us that we have an obligation to provide equitable access and clear information; that coordinated efforts are essential; and that doubt, distrust, and disinformation can undermine safe, effective vaccines and worthy public health initiatives.

Planning for the implementation of SARS-CoV-2 vaccination requires not only working out details of distribution, priority, and cold chains, but also strategies for reaching people who are distrustful, hesitant, dubious, or frankly opposed.

Full detail: : [Vaccinating children against Covid-19 — The lessons of Measles](https://www.nejm.org/doi/pdf/10.1056/NEJMp2034765?articleTools=true)

**Title**: Realising the potential of SARS-CoV-2 vaccines—a long shot?

The Lancet Respiratory Medicine | January 20th 2021

The race to develop safe, effective vaccines against severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has produced impressive results. As of January 18th, 2021, 64 vaccines were in clinical development according to the WHO COVID-19 candidate vaccine database.

This editorial suggests that although the start of mass vaccination programmes should be celebrated, many challenges lie ahead in reaching eligible recipients and protecting those at risk from COVID-19-related morbidity and mortality.

Full editorial: [Realising the potential of SARS-CoV-2 vaccines—a long shot?](https://www.thelancet.com/journals/lanres/article/PIIS2213-2600%2821%2900045-X/fulltext)

**Title**: Optimism and caution for an inactivated COVID-19 vaccine

The Lancet Infectious Diseases | 21st January 2021

Although the COVID-19 pandemic has caused substantial morbidity, mortality, and social upheaval worldwide, the final months of 2020 heralded the high efficacy and safety results of three phase 3 clinical trials of SARS-CoV-2 vaccines. The first COVID-19 vaccine to be approved in the western world, BNT162b2 (Pfizer), was closely followed by mRNA-1273 (Moderna), and the chimpanzee-adenovirus vectored AZD1222 (AstraZeneca–Oxford).

Unfortunately, as this Comment piece discusses, cold-chain requirements, finite global manufacturing capacity, and insufficient supply are likely to disproportionately affect low-income and middle-income countries (LMICs). Mathematical models indicate there will not be an adequate supply of vaccines available to cover the global population until 2023 further exacerbating health and other disparities in LMICs.

Full detail: [Optimism and caution for an inactivated COVID-19 vaccine](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099%2820%2930988-9/fulltext)

**Title**: Too little, too late: social media companies’ failure to tackle vaccine misinformation poses a real threat

BMJ | 2021; 372: n26 | 21st January 2021

As the world looks to the new covid-19 vaccines with hope, there are major worries about how social media will affect uptake. This BMJ Feature ask what the companies in charge should be doing to stem the misinformation tide.

Full article: [Too little, too late: social media companies’ failure to tackle vaccine misinformation poses a real threat](https://www.bmj.com/content/372/bmj.n26)

**Title**: Assess the effects of extending Pfizer vaccine dosing interval, expert urges

BMJ | 2021; 372: n162 | 19th January 2021

A leading statistician has written to health secretary Matt Hancock urging him to investigate the effects of extending the gap between the first and second dose of the Pfizer BioNTech covid-19 vaccine.

Sheila Bird, former programme leader at the Medical Research Council Biostatistics Unit at the University of Cambridge and a member of the Royal Statistical Society’s covid-19 taskforce, said that while deviating from the recommended dosing interval of three weeks could be the right decision that saves more people, the government should ensure they find out the consequences.

Her call comes as concerns were raised over whether everyone who receives the first dose will be given a second dose.

Full detail: : [Assess the effects of extending Pfizer vaccine dosing interval, expert urges](https://www.bmj.com/content/372/bmj.n162)

**Title**: Safety and immunogenicity of an inactivated SARS-CoV-2 vaccine, BBV152: a double-blind, randomised, phase 1 trial

The Lancet Infectious Diseases | January 21st 2021

To mitigate the effects of COVID-19, a vaccine is urgently needed. BBV152 is a whole-virion inactivated SARS-CoV-2 vaccine formulated with a toll-like receptor 7/8 agonist molecule adsorbed to alum (Algel-IMDG) or alum (Algel).

BBV152 led to tolerable safety outcomes and enhanced immune responses. Both Algel-IMDG formulations were selected for phase 2 immunogenicity trials. Further efficacy trials are warranted.

Full article[: Safety and immunogenicity of an inactivated SARS-CoV-2 vaccine, BBV152: a double-blind, randomised, phase 1 trial](https://www.thelancet.com/action/showPdf?pii=S1473-3099%2820%2930942-7)

**Title**: What we know about covid-19 reinfection so far

BMJ | 2021; 372: n99 | 19th January 2021

With most coronaviruses, recovery confers a degree of immunity to reinfection. But a small number of patients have caught covid-19 for a second time. This BMJ Feature looks at what we know and how worried we should be, asking the following questions:

* How often does reinfection occur?
* Is disease from reinfection more severe?
* Reinfection or reactivation?
* What do the new variants mean for reinfection?

Full detail: [What we know about covid-19 reinfection so far](https://www.bmj.com/content/372/bmj.n99)

**Title**: 'No evidence' virus levels decreasing in England

Imperial College London | 21st January 2021

The REal-time Assessment of Community Transmission study-1 (REACT-1) obtains throat and nose swabs from between 120,000 and 180,000 people in the community in England at approximately monthly intervals. Round 8a of REACT-1 mainly covers a period from 6th January 2021 to 15th January 2021.

The report finds that during the initial 10 days of the third COVID-19 lockdown in England in January 2021, prevalence of SARS-CoV-2 was very high with no evidence of decline. The researchers say the government's latest daily case figures, which show a slowdown, may reflect a drop in cases just after Christmas, which is only now being registered. They also suggest infection levels may have gone up in early January as a result of people's activity increasing after the Christmas holiday period.

Until prevalence in the community is reduced substantially, the report states, health services will remain under extreme pressure and the cumulative number of lives lost during this pandemic will continue to increase rapidly.

This latest round of results from Imperial College's React-1 infection survey - one of the country's largest studies into Covid-19 infections - are interim with the full set of results to be published in a weeks' time.

Full report: [REACT-1 round 8 interim report: SARS-CoV-2 prevalence during the initial stages of the third national lockdown in England](https://spiral.imperial.ac.uk/bitstream/10044/1/85583/2/REACT1_r8a_final.pdf)

See also:

* [January 2021 findings from COVID-19 study published](https://www.gov.uk/government/news/january-2021-findings-from-covid-19-study-published) | Department of Health and Social Care
* [Infections remain high in England with no evidence of decline since lockdown](https://www.bmj.com/content/372/bmj.n201) | BMJ
* [Infections 'must be brought down' to help NHS](https://www.bbc.co.uk/news/health-55736239) | BBC

**Title:** Household transmission of SARS-CoV-2 and risk factors for susceptibility and infectivity in Wuhan: a retrospective observational study

The Lancet Infectious Diseases | 18th January 2021

Wuhan was the first epicentre of COVID-19 in the world, accounting for 80% of cases in China during the first wave. The authors of this study aimed to assess household transmissibility of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and risk factors associated with infectivity and susceptibility to infection in Wuhan.

The study found that within households, children and adolescents were less susceptible to SARS-CoV-2 infection but were more infectious than older individuals. Presymptomatic cases were more infectious and individuals with asymptomatic infection less infectious than symptomatic cases.

These findings have implications for devising interventions for blocking household transmission of SARS-CoV-2, such as timely vaccination of eligible children once resources become available.

Full article: [Household transmission of SARS-CoV-2 and risk factors for susceptibility and infectivity in Wuhan: a retrospective observational study](https://www.thelancet.com/action/showPdf?pii=S1473-3099%2820%2930981-6)

**Title**: Face masks help control transmission of COVID-19

The Lancet Digital Health | 19th January 2021

This comment piece reports that face mask mandates have been divisive in many countries. The face mask debate has been complicated by the two modes by which wearing a mask affects transmission: masks might protect the wearer from infection or masks might prevent the wearer transmitting the virus, if infected. The article states that the evidence is clear: masks work, however, buy-in from society is necessary for the success of the intervention.

Full detail: [Face masks help control transmission of COVID-19](https://www.thelancet.com/action/showPdf?pii=S2589-7500%2821%2900003-0)

Related article: [Mask-wearing and control of SARS-CoV-2 transmission in the USA: a cross-sectional study](https://www.thelancet.com/action/showPdf?pii=S2589-7500%2820%2930293-4) | The Lancet Digital Health| 19th January 2021

**Title**: Quarantine and testing strategies in contact tracing for SARS-CoV-2: a modelling study

The Lancet Public Health | 20th January 2021

In most countries, contacts of confirmed COVID-19 cases are asked to quarantine for 14 days after exposure to limit asymptomatic onward transmission. While theoretically effective, this policy places a substantial social and economic burden on both the individual and wider society, which might result in low adherence and reduced policy effectiveness. The authors of this study aimed to assess the merit of testing contacts to avert onward transmission and to replace or reduce the length of quarantine for uninfected contacts.

The study finds that testing might allow for a substantial reduction in the length of, or replacement of, quarantine with a small excess in transmission risk. Decreasing test and trace delays and increasing adherence will further increase the effectiveness of these strategies. Further research is required to empirically evaluate the potential costs (increased transmission risk, false reassurance) and benefits (reduction in the burden of quarantine, increased adherence) of such strategies before adoption as policy.

Full article: [Quarantine and testing strategies in contact tracing for SARS-CoV-2: a modelling study](https://www.thelancet.com/action/showPdf?pii=S2468-2667%2820%2930308-X)

**Title**: Insight into the practical performance of RT-PCR testing for SARS-CoV-2 using serological data: a cohort study

The Lancet Microbe | 19th January 2021

Virological detection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) through RT-PCR has limitations for surveillance. Serological tests can be an important complementary approach. This study aimed to assess the practical performance of RT-PCR-based surveillance protocols and determine the extent of undetected SARS-CoV-2 infection in Shenzhen, China.

Even rigorous RT-PCR testing protocols might miss a substantial proportion of SARS-CoV-2 infections, perhaps in part due to difficulties in determining the timing of testing in asymptomatic individuals for optimal sensitivity. RT-PCR-based surveillance and control protocols that include rapid contact tracing, universal RT-PCR testing, and mandatory 2-week quarantine were, nevertheless, able to contain community spread in Shenzhen, China.

Full article: [Insight into the practical performance of RT-PCR testing for SARS-CoV-2 using serological data: a cohort study](https://www.thelancet.com/action/showPdf?pii=S2666-5247%2820%2930200-7)

**Title**: NHS Test and Trace meets new year surge in demand with faster turnaround times

Department of Health and Social Care | 21st January 2021

NHS Test and Trace has seen a record-breaking start to the new year. In the first 2 weeks of January, NHS Test and Trace has carried out more than 13% of the PCR tests conducted to date. Approximately 331,000 people received a positive result, with NHS Test and Trace identifying an estimated 47% of new infections.

Not only are record numbers of people being tested, but NHS Test and Trace has successfully reached 86.7% of the people who received a positive test result, and 92.9% of their contacts, making a real impact in breaking chains of transmission. In total during the week of 7 to 13 January, 874,552 people who had either tested positive or were a recent close contact of someone who had tested positive, were reached and told to self-isolate – people who might otherwise have gone on to unknowingly infect others.

NHS Test and Trace has vastly expanded its test site network and now has more than 800 test sites in operation, including 448 local test sites. The median distance travelled for a test is just 2.2 miles, compared to 5.1 miles as recently as September.

Test results are also coming back more quickly. For this reporting period, 85.0% of in-person test results returned the next day after the test was taken, compared with 63.0% the week before.

Full detail: [NHS Test and Trace meets new year surge in demand with faster turnaround times](https://www.gov.uk/government/news/nhs-test-and-trace-meets-new-year-surge-in-demand-with-faster-turnaround-times)

**workforce wellbeing**

**TITLE:** HOW TO FEEL SAFE WORKING ON THE FRONT LINE - YOUR LEGAL AND ETHICAL QUESTIONS ANSWERED

BMJ | 2021; 372: n179 | 20th January 2021

The pandemic has presented doctors with legal and ethical challenges around how to treat patients in overstretched health services. This article examines these key questions:

* If resources such as critical care are insufficient, who decides which patients need to be prioritised, and how will the decision be taken?
* Could my trust face a clinical negligence claim if I denied a patient a critical care bed, or took a patient off a ventilator, to give it to another who was judged to have a better chance of survival?
* Can I be required to work in a different specialty during the pandemic?
* Could doctors be at risk of investigation for gross negligence manslaughter as a result of a decision to deny treatment, such as taking a patient off a ventilator?
* Could I face misconduct charges from the General Medical Council over my treatment decisions?
* I’m feeling anxious and overwhelmed. Where can I get support?

Full detail: [How to feel safe working on the front line - your legal and ethical questions answered](https://www.bmj.com/content/372/bmj.n179)

**Title:** how many doctors have received the vaccine?

British Medical Association | 22nd January 2021

The BMA are tracking the rollout of both first and second dose vaccination against COVID-19, as it campaigns for rapid vaccine distribution to doctors. The BMA has found that while most UK doctors have now received a vaccination, there is variation by country and grade, and one in 10 are yet to receive a first dose.

Full detail: [COVID-19: analysing the impact of coronavirus on doctors](https://www.bma.org.uk/advice-and-support/covid-19/what-the-bma-is-doing/covid-19-bma-actions-and-policy/covid-19-analysing-the-impact-of-coronavirus-on-doctors?utm_source=The%20British%20Medical%20Association&utm_medium=email&utm_campaign=12115817_NON%20MEMBER%20NEWSLETTER%20210121%20-%20ENGLAND&utm_content=Vaccine%20survey&dm_i=JVX,77OMH,24ZRDV,T8A3W,1)

**Title:** COVID-19: risk assessment

British Medical Association | updated 18th January 2021

All doctors should have a risk assessment, including those returning to the NHS and existing staff. This online resource covers risk factors, tools to help and what the process should be.

Full detail: [COVID-19: risk assessment](https://www.bma.org.uk/advice-and-support/covid-19/your-health/covid-19-risk-assessment?utm_source=The%20British%20Medical%20Association&utm_medium=email&utm_campaign=12115817_NON%20MEMBER%20NEWSLETTER%20210121%20-%20ENGLAND&utm_content=Risk%20assessment%20guidance&dm_i=JVX,77OMH,24ZRDV,T8A3W,1)

**Health management**

**TITLE:** HEALTH CHARITIES AND THE NHS. A VITAL PARTNERSHIP IN PERIL?

The London School of Economics and Political Science | 19th January 2021

This study reveals how the Covid-19 pandemic has confirmed the vital contribution of health charities to the NHS. It argues that strategic engagement with the charities by health policy makers has declined in recent years and that substantial benefits for the health service as a whole would come with a reaffirmation of this partnership.

The report highlights the crucial services and leadership that healthcare charities provide for the NHS, both of which have been shown to be critical throughout the current pandemic.

It sets out that for hospice and end-of-life care, so threatened by Covid-19, the health service is dependent on charities for the provision of services. In this and other areas such as cancer care and social care, charities also provide vital leadership and strategic input.

The report articulates the current fragility due to the pandemic and the resulting risk to services, and it sets out the pressing need for better recognition of and healthy engagement with these charities by policy makers, and the benefits that this would bring.

Full report: [Health charities and the NHS. A vital partnership in peril?](https://ngs.org.uk/wp-content/uploads/2021/01/LSE-Report-January-2021.pdf)

News release: [Health charities and the NHS. A vital partnership in peril?](https://ngs.org.uk/new-report-health-charities-and-the-nhs-a-vital-partnership-in-peril/) | National Garden Scheme

**Title:** Are overwhelmed health systems an inevitable consequence of covid-19? Experiences from China, Thailand, and New York State

BMJ | 2021; 372: n83 | 22nd January 2021

Drawing on international experiences, this analysis argues that immediate extensive action to contain local transmission of new infectious diseases protects health systems from being overwhelmed.

Key messages:

* Rapid increase in covid-19 cases seriously disrupts health delivery systems, creates stress in the health workforce, limits access to hospital services, and increases mortality
* Country evidence shows that infection of covid-19 can be contained at very early stage of the epidemic through public health measures such as use of face masks and physical distancing
* Cross-sectoral coordinated action and an effective test, trace, quarantine, and treatment system for covid-19 patients are also vital
* Effective governance is needed to ensure citizen adherence to public health measures and social interventions that are key to protect health delivery systems from disruption

Full detail: [Are overwhelmed health systems an inevitable consequence of covid-19? Experiences from China, Thailand, and New York State](https://www.bmj.com/content/372/bmj.n83)

**TITLE:** HSJ PODCAST: HOW THE NHS WAS LEFT HIGH AND DRY IN COVID’S THIRD WAVE

HSJ | 22nd January 2021

Operational pressures on the NHS because of covid are still high and, although admissions are starting to level off in some places, the usual winter challenge of patient discharge is more troubling than ever. This week’s HSJ podcast reflects on the barriers to covid patient discharge, why funding from the Treasury is too little, too late, and why domiciliary care is the real pinch-point.

It also looks into the logistics of vaccine delivery and why areas of the country performing strongly are seeing their vaccine supplies halved.

Full detail: [HSJ podcast: How the NHS was left high and dry in covid’s third wave](https://www.hsj.co.uk/hsj-health-check-podcast/hsj-podcast-how-the-nhs-was-left-high-and-dry-in-covids-third-wave/7029354.article?mkt_tok=eyJpIjoiTWpJek4yUmxZalF4WldGaSIsInQiOiJSdElvM3JMdVltUm84XC9FVitiblBmdFBXcFUyY0RZc3ZLUVc5QmVqeWw0bEJ5YW9xOHp4d3A2dnB5R1J2RXJMdUVzamZadDhTaklvSWQyUEJDZHVlNEljbmwxaFZrd0l3VVdWUnZcL0hLTzhVZHZPXC8rUjFGZDBITDRXVGNybFdCeiJ9)

**other**

**Title**: Ethnicity and outcomes in patients hospitalised with COVID-19 infection in East London: an observational cohort study

BMJ Open| 17th January 2021

This study aimed to describe outcomes within different ethnic groups of a cohort of hospitalised patients with confirmed COVID-19 infection, and to quantify and describe the impact of a number of prognostic factors, including frailty and inflammatory markers.

The authors conclude that patients from Asian and black backgrounds had higher mortality from COVID-19 infection despite controlling for all previously identified confounders and frailty. Higher rates of invasive ventilation indicate greater acute disease severity. Their analyses suggest that patients of Asian and black backgrounds suffered disproportionate rates of premature death from COVID-19.

Full article: [Ethnicity and outcomes in patients hospitalised with COVID-19 infection in East London: an observational cohort study](https://bmjopen.bmj.com/content/bmjopen/11/1/e042140.full.pdf)

**Title:** What new variants are emerging and how are they being investigated?

BMJ | 2021; 372: n158 | 18th January 2021

The new, more transmissible variant of SARS-CoV-2 found in England is just one of many variations of the virus being detected around the world. This article  looks at what we know so far and asks:

* What do we know about the new variant emerging from Brazil?
* What do we know about the South African variant?
* Do the current vaccines work against the Brazilian, English, and South African variants?
* Could the virus still mutate to escape the vaccines?
* Is there any link between the Oxford vaccine trials—carried out in Brazil and South Africa—and the new variants?
* How is the UK monitoring and studying new variants?
* How will the new variants be investigated?
* Are countries collaborating as variants arise?

Full detail: [What new variants are emerging and how are they being investigated?](https://www.bmj.com/content/372/bmj.n158)

Protecting the environment from plastic PPE

BMJ | 2021; 372 :n109 | 19th January 2021

Although measures to control covid-19 have been associated with some positive environmental effects, including decreases in global emissions of carbon dioxide, the pandemic has exacerbated plastic pollution through high use of personal protective equipment (PPE). Single use items include surgical masks, gloves, and non-reusable gowns.

In England alone, 2.3 billion items of single use PPE were distributed to health and social care services between February and July 2020, the same amount distributed throughout the whole of 2019. Globally, 129 billion face masks and 65 billion gloves are estimated to have been used every month during the covid-19 pandemic. If usual patterns of disposal continue, around 75% of plastic PPE waste related to covid-19 will end up in landfills or ocean environments.Evidence of improper disposal of PPE is emerging, with plastic masks and gloves found on beaches, ocean beds, and urban environments globally.

This editorial discusses how the covid-19 pandemic has greatly exacerbated the global environmental threat of plastic pollution, and states that although management of the public health crisis is the priority, governments and healthcare systems must simultaneously implement strategies to mitigate the environmental consequences of the pandemic.

Full editorial: [Protecting the environment from plastic PPE](https://www.bmj.com/content/372/bmj.n109)

**Title:** Coronavirus (COVID-19) Infection Survey, UK: 22 January 2021

Office for National Statistics | 22nd January 2021

The ONS’ latest estimate for England suggests the COVID-19 infection rate remains high but has decreased slightly.

Key statistics:

* Around 1 in 55 people not in care homes, hospitals or other institutional settings had COVID-19 in the week ending 16 January.
* In England, London and the North East had the highest infection rates in the week ending 16 January. ONS estimate that in London, 1 in 35 people had Covid-19.
* 1 in 60 people had Covid-19 in week ending 16 January
* In the week ending 16 January, the percentage of positive cases that are compatible with the new variant of the virus has decreased in
* In other regions, increases in positive cases that are compatible with the new variant have generally levelled off (in the week ending 16 January)

Full detail: [Coronavirus (COVID-19) Infection Survey, UK: 22 January 2021](https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronaviruscovid19infectionsurveypilot/22january2021)

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

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