COVID-19 update

August 2021

clinical management

**Title:** RECOVERY-RS trial finds continuous positive airway pressure (CPAP) reduces need for invasive ventilation in hospitalised COVID-19 patients

National Institute for Health Research | 5th August 2021

The NIHR-supported Respiratory Strategies in COVID-19; CPAP, High-flow, and Standard Care (RECOVERY-RS) trial has demonstrated that treating hospitalised COVID-19 patients who have acute respiratory failure with continuous positive airway pressure (CPAP) reduces the need for invasive mechanical ventilation.

Preliminary data from the trial also suggests that the routine use of high flow nasal oxygenation (HFNO), which can consume large amounts of oxygen, should be reconsidered as it did not improve outcomes for COVID-19 patients compared with conventional oxygen therapy.

Based on this evidence, the authors say CPAP should be considered for hospitalised patients with COVID-19 needing increasing oxygen - reducing the need for invasive ventilation and relieving pressure on intensive care services.

Full detail: [RECOVERY-RS trial finds continuous positive airway pressure (CPAP) reduces need for invasive ventilation in hospitalised COVID-19 patients](https://www.nihr.ac.uk/news/recovery-rs-trial-finds-continuous-positive-airway-pressure-cpap-reduces-need-for-invasive-ventilation-in-hospitalised-covid-19-patients/28366)

See also: [CPAP reduces need for invasive mechanical ventilation in patients requiring oxygen, study finds](https://www.bmj.com/content/374/bmj.n1950) | BMJ

**Title:** Empagliflozin to be investigated as a possible treatment for COVID-19 in the RECOVERY trial

University of Oxford | 28th July 2021

Empagliflozin – a routine treatment for type 2 diabetes – will be investigated in the Randomised Evaluation of COVid-19 thERapY (RECOVERY) trial.

Empagliflozin is regularly used to treat type 2 diabetes, and has also been shown to have benefits for patients with chronic kidney disease or heart failure. The drug works by reversibly blocking the action of a sodium-glucose co-transporter (SGLT) in the kidney. This reduces the amount of glucose absorbed by the body, causing it to be excreted into the urine instead.

It is thought that sodium-glucose co-transporters may help stabilise metabolic pathways that become dysregulated during viral infection, reduce inflammation, improve heart and blood vessel function, and increase blood oxygen transport. Together, these actions may protect against organ damage and improve the chance of recovery for patients with COVID-19.

Full detail: [Empagliflozin to be investigated as a possible treatment for COVID-19 in the RECOVERY trial](https://www.recoverytrial.net/news/empagliflozin-to-be-investigated-as-a-possible-treatment-for-covid-19-in-the-recovery-trial)

**Title:** COVID-19 rapid guideline: vaccine-induced immune thrombocytopenia and thrombosis (VITT)

National Institute for Health & Care Excellence | 29th July 2021

This guideline covers vaccine-induced immune thrombocytopenia and thrombosis (VITT), a syndrome which has been reported in rare cases after COVID-19 vaccination. VITT may also be called vaccine-induced prothrombotic immune thrombocytopenia (VIPIT) or thrombotic thrombocytopenic syndrome (TTS).

Because VITT is a new condition, there is limited evidence available to inform clinical management, identification and management of the condition is evolving quickly as the case definition becomes clearer. This guideline was produced to support clinicians to diagnose and manage this newly recognised syndrome.

Full detail: [COVID-19 rapid guideline: vaccine-induced immune thrombocytopenia and thrombosis (VITT)](https://www.nice.org.uk/guidance/ng200)

See also: [NICE issues guidance on vaccine induced immune thrombocytopenia and thrombosis](https://www.bmj.com/content/374/bmj.n1914) | BMJ

**Title:** Ivermectin for preventing and treating COVID‐19

Cochrane Database of Systematic Reviews | 28th July 2021

Ivermectin, an antiparasitic agent used to treat parasitic infestations, inhibits the replication of viruses in vitro. The molecular hypothesis of ivermectin's antiviral mode of action suggests an inhibitory effect on severe acute respiratory syndrome coronavirus 2 (SARS‐CoV‐2) replication in the early stages of infection. Currently, evidence on efficacy and safety of ivermectin for prevention of SARS‐CoV‐2 infection and COVID‐19 treatment is conflicting.

The objectives of this study were to assess the efficacy and safety of ivermectin compared to no treatment, standard of care, placebo, or any other proven intervention for people with COVID‐19 receiving treatment as inpatients or outpatients, and for prevention of an infection with SARS‐CoV‐2 (postexposure prophylaxis).

Based on the current very low‐ to low‐certainty evidence, the authors of this review are uncertain about the efficacy and safety of ivermectin used to treat or prevent COVID‐19. The completed studies are small and few are considered high quality. Several studies are underway that may produce clearer answers in review updates. Overall, the reliable evidence available does not support the use of ivermectin for treatment or prevention of COVID‐19 outside of well‐designed randomized trials.

Full detail: [Ivermectin for preventing and treating COVID‐19](https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD015017.pub2/full#CD015017-sec-0140)

**Title:** Caring for hospital patients with COVID-19

Royal College of Physicians | 2nd August 2021

The findings of the largest study to date of the quality of care given to patients in the UK with COVID-19 are outlined in this report.

This study recruited a sample and demographic representative of English hospitals’ experience of the COVID-19 pandemic. It gathered information about the quality of care delivered from 19 organisations in England which collectively looked after over 26,000 patients with COVID-19 in 2020 with over 6,000 patients dying with the condition in their care. They reviewed 510 patient cases and their care to identify learnings from the pandemic.

The study concludes that overall care delivered was judged to have been adequate or better in 96.5% of the patient cases. Care judged to be poor overall was very uncommon and occurred in only 3.5% of the total sample. When it did occur, it was related to end-of-life care issues, nosocomial infections, delays in assessment and the two linked issues of poor communication and poor documentation.

The report includes a number of recommendations for the NHS and healthcare teams.

Full document: [Caring for hospital patients with COVID-19. Quality of care in England examined by case record review](https://www.rcplondon.ac.uk/file/31686/download)

See also: [Most patients in England received good or excellent care in hospital, finds analysis](https://www.bmj.com/content/374/bmj.n1935) | BMJ

**Title:** Risk of acute myocardial infarction and ischaemic stroke following COVID-19 in Sweden

The Lancet | 29th July 2021

COVID-19 is a complex disease targeting many organs. Previous studies highlight COVID-19 as a probable risk factor for acute cardiovascular complications. The authors of this study aimed to quantify the risk of acute myocardial infarction and ischaemic stroke associated with COVID-19 by analysing all COVID-19 cases in Sweden.

The findings suggest that COVID-19 is a risk factor for acute myocardial infarction and ischaemic stroke. This indicates that acute myocardial infarction and ischaemic stroke represent a part of the clinical picture of COVID-19, and highlights the need for vaccination against COVID-19.

Full paper: [Risk of acute myocardial infarction and ischaemic stroke following COVID-19 in Sweden: a self-controlled case series and matched cohort study](https://www.thelancet.com/action/showPdf?pii=S0140-6736%2821%2900896-5)

**Title:** RECOVERY-RS trial finds continuous positive airway pressure (CPAP) reduces need for invasive ventilation in hospitalised COVID-19 patients

National Institute for Health Research | 5th August 2021

The NIHR-supported Respiratory Strategies in COVID-19; CPAP, High-flow, and Standard Care (RECOVERY-RS) trial has demonstrated that treating hospitalised COVID-19 patients who have acute respiratory failure with continuous positive airway pressure (CPAP) reduces the need for invasive mechanical ventilation.

Preliminary data from the trial also suggests that the routine use of high flow nasal oxygenation (HFNO), which can consume large amounts of oxygen, should be reconsidered as it did not improve outcomes for COVID-19 patients compared with conventional oxygen therapy.

Based on this evidence, the authors say CPAP should be considered for hospitalised patients with COVID-19 needing increasing oxygen - reducing the need for invasive ventilation and relieving pressure on intensive care services.

Full detail: [RECOVERY-RS trial finds continuous positive airway pressure (CPAP) reduces need for invasive ventilation in hospitalised COVID-19 patients](https://www.nihr.ac.uk/news/recovery-rs-trial-finds-continuous-positive-airway-pressure-cpap-reduces-need-for-invasive-ventilation-in-hospitalised-covid-19-patients/28366)

**Title:** Inhaled budesonide for COVID-19 in people at high risk of complications in the community in the UK (PRINCIPLE)

The Lancet | 10th August 2021

A previous efficacy trial found benefit from inhaled budesonide for COVID-19 in patients not admitted to hospital, but effectiveness in high-risk individuals is unknown. This study aimed to establish whether inhaled budesonide reduces time to recovery and COVID-19-related hospital admissions or deaths among people at high risk of complications in the community.

The researchers found that inhaled budesonide improves time to recovery, with a chance of also reducing hospital admissions or deaths (although our results did not meet the superiority threshold), in people with COVID-19 in the community who are at higher risk of complications.

Full paper: [Inhaled budesonide for COVID-19 in people at high risk of complications in the community in the UK (PRINCIPLE): a randomised, controlled, open-label, adaptive platform trial](https://www.thelancet.com/action/showPdf?pii=S0140-6736%2821%2901744-X)

**Title:** Doxycycline for community treatment of suspected COVID-19 in people at high risk of adverse outcomes in the UK (PRINCIPLE)

The Lancet Respiratory Medicine | 27th July 2021

Doxycycline is often used for treating COVID-19 respiratory symptoms in the community despite an absence of evidence from clinical trials to support its use. The authors of this study aimed to assess the efficacy of doxycycline to treat suspected COVID-19 in the community among people at high risk of adverse outcomes.

The research found that patients with suspected COVID-19 in the community in the UK, who were at high risk of adverse outcomes, treatment with doxycycline was not associated with clinically meaningful reductions in time to recovery or hospital admissions or deaths related to COVID-19, and should not be used as a routine treatment for COVID-19.

Full paper: [Doxycycline for community treatment of suspected COVID-19 in people at high risk of adverse outcomes in the UK (PRINCIPLE): a randomised, controlled, open-label, adaptive platform trial](https://www.thelancet.com/action/showPdf?pii=S2213-2600%2821%2900310-6)

**Title:** Effect of anakinra on mortality in patients with COVID-19

The Lancet Rheumatology | 9th August 2021

Anakinra might improve the prognosis of patients with moderate to severe COVID-19 (ie, patients requiring oxygen supplementation but not yet receiving organ support). The authors of this study aimed to assess the effect of anakinra treatment on mortality in patients admitted to hospital with COVID-19.

The study concludes that anakinra could be a safe, anti-inflammatory treatment option to reduce the mortality risk in patients admitted to hospital with moderate to severe COVID-19 pneumonia, especially in the presence of signs of hyperinflammation such as CRP concentrations higher than 100 mg/L.

Full paper: [Effect of anakinra on mortality in patients with COVID-19: a systematic review and patient-level meta-analysis](https://www.thelancet.com/action/showPdf?pii=S2665-9913%2821%2900216-2)

**Title:** Systemic corticosteroids for the treatment of COVID‐19

Cochrane Database of Systematic Reviews | 16th August 2021

The objectives of this review were to assess whether systemic corticosteroids are effective and safe in the treatment of people with COVID‐19, and to keep up to date with the evolving evidence base using a living systematic review approach.

Key messages:

• Corticosteroids (anti‐inflammatory medicines) given orally or by injection (systemic) are probably effective treatments for people hospitalised with COVID‐19. We don’t know whether they cause unwanted effects.

• We don’t know which systemic corticosteroid is the most effective.

Full detail:  [Systemic corticosteroids for the treatment of COVID‐19](https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD014963/full#CD014963-abs-0002)

**Title:** Early Convalescent Plasma for High-Risk Outpatients with Covid-19

New England Journal of Medicine | 18th August 2021

Patients who were seen in emergency departments within 7 days after the onset of Covid-19 symptoms and were considered appropriate for discharge were randomly assigned to receive either convalescent plasma or placebo. Convalescent plasma did not prevent disease progression.

Full paper: [Early convalescent plasma for high-risk outpatients with Covid-19](https://www.nejm.org/doi/pdf/10.1056/NEJMoa2103784?articleTools=true)

**Title:** First monoclonal antibody treatment for COVID-19 approved for use in the UK

Medicines and Healthcare products Regulatory Agency | 20th August 2021

Following on from a thorough review of the evidence carried out by the MHRA, and recommendation by the Commission on Human Medicines (CHM), the MHRA has approved Ronapreve as the first monoclonal antibody combination product indicated for use in the prevention and treatment of acute COVID-19 infection for the UK.

Developed by Regeneron/Roche, the drug is administered either by injection or infusion and acts at the lining of the respiratory system where it binds tightly to the coronavirus and prevents it from gaining access to the cells of the respiratory system. Clinical trial data assessed by a dedicated team of MHRA scientists and clinicians has shown that Ronapreve may be used to prevent infection, promote resolution of symptoms of acute COVID-19 infection and can reduce the likelihood of being admitted to hospital due to COVID-19.

Full detail: [First monoclonal antibody treatment for COVID-19 approved for use in the UK](https://www.gov.uk/government/news/first-monoclonal-antibody-treatment-for-covid-19-approved-for-use-in-the-uk)

See also:

* [UK approves first monoclonal antibody treatment](https://www.bmj.com/content/374/bmj.n2083) | BMJ
* [Covid-antibody therapy approved in UK](https://www.bbc.co.uk/news/health-58281332) | BBC News

**Title:** Adjunct Immune Globulin for Vaccine-Induced Immune Thrombotic Thrombocytopenia

New England Journal of Medicine | 19th August 2021

A rare side effect of ChAdOx1 nCoV-19 vaccination against Covid-19 — venous or arterial thrombosis, which has been termed vaccine-induced immune thrombotic thrombocytopenia — has been reported in recent months. In this Brief Report, investigators describe the use of intravenous immune globulin in the treatment of three such vaccine recipients in Canada.

Full detail: [Adjunct Immune Globulin for vaccine-induced Immune Thrombotic Thrombocytopenia](https://www.nejm.org/doi/pdf/10.1056/NEJMoa2107051?articleTools=true)

**Title:** Clinical Features of Vaccine-Induced Immune Thrombocytopenia and Thrombosis

New England Journal of Medicine | 12th August 2021

The phenotypes of VITT were defined in 220 patients in the United Kingdom who presented a median of 14 days after the first ChAdOx1 nCoV-19 vaccination. Half had cerebral venous sinus thrombosis, a third of whom also had intracranial hemorrhage. Mortality was 22%. Intravenous immune globulin may reverse VITT.

Full paper: [Clinical features of vaccine-induced Immune Thrombocytopenia and Thrombosis](https://www.nejm.org/doi/pdf/10.1056/NEJMoa2109908?articleTools=true)

**Title:** Therapeutic Anticoagulation with Heparin in Noncritically Ill Patients with Covid-19

New England Journal of Medicine | 4th August 2021

In a randomized trial, patients with moderately severe Covid-19 were assigned to receive either therapeutic-dose anticoagulation or usual-care thromboprophylaxis. At 21 days, therapeutic-dose anticoagulation resulted in a higher probability of survival until hospital discharge without organ support.

Full paper: [Therapeutic anticoagulation with Heparin in noncritically ill patients with Covid-19](https://www.nejm.org/doi/pdf/10.1056/NEJMoa2105911?articleTools=true)

**Title:** Therapeutic Anticoagulation with Heparin in Critically Ill Patients with Covid-19

New England Journal of Medicine | 4th August 2021

In a randomized trial, patients with severe Covid-19 were assigned to receive either therapeutic-dose anticoagulation or usual-care pharmacologic thromboprophylaxis. At 21 days, therapeutic-dose anticoagulation did not improve hospital survival or the number of days free of cardiovascular or respiratory organ support.

Full paper: [Therapeutic anticoagulation with Heparin in critically ill patients with Covid-19](https://www.nejm.org/doi/pdf/10.1056/NEJMoa2103417?articleTools=true)

Related editorial: [Surviving Covid-19 with Heparin?](https://www.nejm.org/doi/pdf/10.1056/NEJMe2111151?articleTools=true)

**Title:** Tofacitinib in Patients Hospitalized with Covid-19 Pneumonia

New England Journal of Medicine | 29th July 2021

Patients who were hospitalized with Covid-19 pneumonia were randomly assigned, at a median of 10 days after symptom onset, to receive tofacitinib or placebo. At 28 days, the risk of death or respiratory failure was lower in the tofacitinib group.

Full paper: [Tofacitinib in patients hospitalized with Covid-19 Pneumonia](https://www.nejm.org/doi/pdf/10.1056/NEJMoa2101643?articleTools=true)

**Title:** Awake prone positioning for COVID-19 acute hypoxaemic respiratory failure: a randomised, controlled, multinational, open-label meta-trial

The Lancet Respiratory Medicine | 20th August 2021

Awake prone positioning has been reported to improve oxygenation for patients with COVID-19 in retrospective and observational studies, but whether it improves patient-centred outcomes is unknown. The authors of this study aimed to evaluate the efficacy of awake prone positioning to prevent intubation or death in patients with severe COVID-19 in a large-scale randomised trial.

The study found that awake prone positioning of patients with hypoxaemic respiratory failure due to COVID-19 reduces the incidence of treatment failure and the need for intubation without any signal of harm. These results support routine awake prone positioning of patients with COVID-19 who require support with high-flow nasal cannula.

Full paper: [Awake prone positioning for COVID-19 acute hypoxaemic respiratory failure: a randomised, controlled, multinational, open-label meta-trial](https://www.thelancet.com/action/showPdf?pii=S2213-2600%2821%2900356-8)

**Title:** Risk of thrombocytopenia and thromboembolism after covid-19 vaccination and SARS-CoV-2 positive testing: self-controlled case series study

BMJ | 2021; 374: n1931 | 27th August 2021

The objective of this study was to assess the association between covid-19 vaccines and risk of thrombocytopenia and thromboembolic events in England among adults.

The authors conclude that increased risks of haematological and vascular events that led to hospital admission or death were observed for short time intervals after first doses of the ChAdOx1 nCoV-19 and BNT162b2 mRNA vaccines. The risks of most of these events were substantially higher and more prolonged after SARS-CoV-2 infection than after vaccination in the same population.

Full paper: [Risk of thrombocytopenia and thromboembolism after covid-19 vaccination and SARS-CoV-2 positive testing: self-controlled case series study](https://www.bmj.com/content/bmj/374/bmj.n1931.full.pdf)

**Title:** COVID-19 and the effects on pulmonary function following infection: A retrospective analysis

EClinicalMedicine | 12th August 2021

The coronavirus disease 2019 (COVID-19) has been identified in over 110 million people with no studies comparing pre-infection pulmonary function to post-infection. This study's aim was to compare pre-infection and post-infection pulmonary function tests (PFT) in COVID-19 infected patients to better delineate between preexisting abnormalities and effects of the virus.

The study showed that there is no difference in pulmonary function as measured by PFT before and after COVID-19 infection in non-critically ill classified patients. There could be a relationship with certain underlying lung diseases (interstitial lung disease and cystic fibrosis) and decreased lung function following infection. This information should aid clinicians in their interpretation of pulmonary function tests obtained following COVID-19 infection.

Full paper: [COVID-19 and the effects on pulmonary function following infection: A retrospective analysis](https://www.thelancet.com/action/showPdf?pii=S2589-5370%2821%2900359-X)

**Title:** Safety, reactogenicity, and immunogenicity of homologous and heterologous prime-boost immunisation with ChAdOx1 nCoV-19 and BNT162b2: a prospective cohort study

The Lancet Respiratory Medicine | 12th August 2021

Heterologous vaccine regimens have been widely discussed as a way to mitigate intermittent supply shortages and to improve immunogenicity and safety of COVID-19 vaccines. This study aimed to assess the reactogenicity and immunogenicity of heterologous immunisations with ChAdOx1 nCov-19 (AstraZeneca, Cambridge, UK) and BNT162b2 (Pfizer-BioNtech, Mainz, Germany) compared with homologous BNT162b2 and ChAdOx1 nCov-19 immunisation.

The heterologous ChAdOx1 nCov-19–BNT162b2 immunisation with 10–12-week interval, recommended in Germany, is well tolerated and improves immunogenicity compared with homologous ChAdOx1 nCov-19 vaccination with 10–12-week interval and BNT162b2 vaccination with 3-week interval. Heterologous prime-boost immunisation strategies for COVID-19 might be generally applicable.

Full paper: [Safety, reactogenicity, and immunogenicity of homologous and heterologous prime-boost immunisation with ChAdOx1 nCoV-19 and BNT162b2: a prospective cohort study](https://www.thelancet.com/action/showPdf?pii=S2213-2600%2821%2900357-X)

recovery

**Title:** Long covid—mechanisms, risk factors, and management

BMJ | 2021, 374: n1648 | 26th July 2021

Recent evidence has shown that a range of persistent symptoms can remain long after the acute SARS-CoV-2 infection, and this condition is now coined long covid by recognized research institutes. Studies have shown that long covid can affect the whole spectrum of people with covid-19, from those with very mild acute disease to the most severe forms.

Like acute covid-19, long covid can involve multiple organs and can affect many systems including, but not limited to, the respiratory, cardiovascular, neurological, gastrointestinal, and musculoskeletal systems.

The symptoms of long covid include fatigue, dyspnea, cardiac abnormalities, cognitive impairment, sleep disturbances, symptoms of post-traumatic stress disorder, muscle pain, concentration problems, and headache.

This review summarizes studies of the long term effects of covid-19 in hospitalized and non-hospitalized patients and describes the persistent symptoms they endure. Risk factors for acute covid-19 and long covid and possible therapeutic options are also discussed.

Full paper: [Long covid—mechanisms, risk factors, and management](https://www.bmj.com/content/bmj/374/bmj.n1648.full.pdf)

**Title:** The long-term sequelae of COVID-19: an international consensus on research priorities for patients with pre-existing and new-onset airways disease

The Lancet Respiratory Medicine | 17th August 2021

Persistent ill health after acute COVID-19—referred to as long COVID, the post-acute COVID-19 syndrome, or the post-COVID-19 condition—has emerged as a major concern. The authors undertook an international consensus exercise to identify research priorities with the aim of understanding the long-term effects of acute COVID-19, with a focus on people with pre-existing airways disease and the occurrence of new-onset airways disease and associated symptoms.

202 international experts were invited to submit a minimum of three research ideas. After a two-phase internal review process, a final list of 98 research topics was scored by 48 experts. Patients with pre-existing or post-COVID-19 airways disease contributed to the exercise by weighting selected criteria.

The highest-ranked research idea focused on investigation of the relationship between prognostic scores at hospital admission and morbidity at 3 months and 12 months after hospital discharge in patients with and without pre-existing airways disease. High priority was also assigned to comparisons of the prevalence and severity of post-COVID-19 fatigue, sarcopenia, anxiety, depression, and risk of future cardiovascular complications in patients with and without pre-existing airways disease.

The authors state that their approach has enabled development of a set of priorities that could inform future research studies and funding decisions. This prioritisation process could also be adapted to other, non-respiratory aspects of long COVID.

Full detail: [The long-term sequelae of COVID-19: an international consensus on research priorities for patients with pre-existing and new-onset airways disease](https://www.thelancet.com/action/showPdf?pii=S2213-2600%2821%2900286-1)

**Title:** the untold heartbreak. Cancelled procedures. Missed appointments. Lost lives.

British Heart Foundation | August 2021

In this report, the British Heart Foundation calls for a clear **c**ardiovascular strategy for England to support recovery from the Covid-19 pandemic. The report underlines the impact of Covid-19 on patients with cardiovascular disease, it emphasise the effects have been felt across the full patient pathway, and this impact has been driven by a number of factors, including:

* Changes in help-seeking behaviour.
* Reduced availability of cardiovascular services.
* Changes in the way care is delivered, including a shift to ‘digital first’ healthcare.
* Disruption to key programmes of work, such as the NHS Health Check in England.

Full report: [The untold heartbreak. Cancelled procedures. Missed appointments. Lost lives. Covid-19’s devastating impact on cardiovascular care and the case for building a stronger and more resilient health system](https://www.bhf.org.uk/-/media/files/what-we-do/legacy-of-covid/bhf-untold-heartbreak-report-final.pdf?la=en&rev=f34dbe73215c4e1eb592bc88df052127&hash=3E5E87D989524217E8AD1D91BD7D2448BB2F880A)

See also:

* [Report summary](https://www.bhf.org.uk/-/media/files/what-we-do/legacy-of-covid/bhf-untold-heartbreak-report-summary.pdf?la=en&rev=06f9d6e3094c44be96f5e1aa2b81ac62&hash=B0FA55CCB683EA3088B8995BD53046B3B7452A14)
* [Press release](https://www.bhf.org.uk/what-we-do/policy-and-public-affairs/legacy-of-covid)

**Title:** Long COVID, a comprehensive systematic scoping review

Infection | 28th July 2021

The aim of this review was to find out what is known from literature about Long COVID. The controversies in its definition have impaired proper recognition and management. The predominant symptoms were: fatigue, breathlessness, arthralgia, sleep difficulties, and chest pain. Recent reports also point to the risk of long-term sequela with cutaneous, respiratory, cardiovascular, musculoskeletal, mental health, neurologic, and renal involvement in those who survive the acute phase of the illness.

Full paper: [Long COVID, a comprehensive systematic scoping review](https://link.springer.com/content/pdf/10.1007/s15010-021-01666-x.pdf)

**Title:** Illness duration and symptom profile in symptomatic UK school-aged children tested for SARS-CoV-2

The Lancet Child & Adolescent Mental Health | 3rd August 2021

In children, SARS-CoV-2 infection is usually asymptomatic or causes a mild illness of short duration. Persistent illness has been reported; however, its prevalence and characteristics are unclear. This paper aimed to determine illness duration and characteristics in symptomatic UK school-aged children tested for SARS-CoV-2 using data from the COVID Symptom Study, one of the largest UK citizen participatory epidemiological studies to date.

Although COVID-19 in children is usually of short duration with low symptom burden, some children with COVID-19 experience prolonged illness duration. Reassuringly, symptom burden in these children did not increase with time, and most recovered by day 56. Some children who tested negative for SARS-CoV-2 also had persistent and burdensome illness. A holistic approach for all children with persistent illness during the pandemic is appropriate.

Full paper: [Illness duration and symptom profile in symptomatic UK school-aged children tested for SARS-CoV-2](https://www.thelancet.com/action/showPdf?pii=S2352-4642%2821%2900198-X)

See also: [Most symptomatic children recover within a week, study finds](https://www.bmj.com/content/374/bmj.n1947) | BMJ

**Title:** Mental health and wellbeing of children and adolescents during the covid-19 pandemic

BMJ | 2021; 374: n1730 | 24th August 2021

Many children and adolescents remain resilient over time and may recover rapidly after disasters such as a pandemic. However, their experiences and the burden of sustained, multiple stressors (including prior trauma, illness, attachment disruption, grief, isolation, closed borders, and home confinement) may result in a range of challenges to their mental health and wellbeing, both short and long term.

This article covers common impacts and effects of the pandemic; assessment, including recognition of symptoms suggestive of mental health disorders; and management, including referral and mitigation of the potentially adverse impacts of the covid-19 pandemic.

Full detail: [Mental health and wellbeing of children and adolescents during the covid-19 pandemic](https://www.bmj.com/content/374/bmj.n1730)

Infection control

**Title:** Seven in ten young people aged 18 to 29 vaccinated with a first dose

Department of Health and Social Care | 12th August 2021

Over 70% of young people aged 18 to 29 in England have received a first dose of a COVID-19 vaccine, the latest figures show, providing vital protection against infection and serious illness from the virus. A total of 5,940,038 people in this age group have received a first dose (70.2%) and 2,683,434 people have received both doses (32.4%).

The latest data from Public Health England and Cambridge University shows that vaccines have saved around 84,600 lives as well as preventing 23.4 million infections and 66,900 hospitalisations in England up to 6 August.

Full detail: [Seven in ten young people aged 18 to 29 vaccinated with a first dose](https://www.gov.uk/government/news/7-in-10-young-people-aged-18-29-vaccinated-with-a-first-dose)

**Title:** Hospital-acquired SARS-CoV-2 infection in the UK's first COVID-19 pandemic wave

The Lancet | 12th August 2021

Prevention of hospital-acquired infections is a critical aspect of clinical management of COVID-19 as hospital-acquired infections have been a common feature of previous novel coronavirus outbreaks.

 The number of COVID-19 patients in UK hospitals reached high levels during the first pandemic wave of 2020, and higher levels still in the subsequent winter wave. The authors of this research assessed the magnitude of nosocomial COVID-19 in acute and long-term National Health Service (NHS) hospital facilities in the UK during the first pandemic wave.

They estimate between 5,700 and 11,900 people were infected in hospital. However, there was a stark difference between general hospitals, ranging from just one in 100 cases caught in hospital, to more than one in four, which the researchers said could not be explained by the number of patients coming in the door.

Full detail: [Hospital-acquired SARS-CoV-2 infection in the UK's first COVID-19 pandemic wave](https://www.thelancet.com/action/showPdf?pii=S0140-6736%2821%2901786-4)

See also:

* [Huge gulf in hospitals' ability to contain Covid](https://www.bbc.co.uk/news/health-58186709) | BBC News
* [One in 10 UK patients caught Covid in hospital in first wave, finds study](https://www.theguardian.com/society/2021/aug/12/one-in-10-uk-patients-caught-covid-in-hospital-in-first-wave-finds-study) | The Guardian

**Title:** How has the risk of acquiring Covid-19 in hospital changed in the last year?

Nuffield Trust | August 13th 2021

Cases of Covid-19 in the community had been rising since last September, leading to a lockdown in November. Although cases dipped following the lockdown, they began to rise rapidly during December as the more transmissible “Kent”, or Alpha, variant of Covid-19 took hold.

However, while case rates in the community continued to grow, the proportion of hospital cases where transmission occurred in hospital then declined, and has continued to do so. And when cases soared in the community in May and June, following the move out of lockdown and the spread of the Delta variant, the proportion of cases acquired in hospital remained at about 5% or below.

A key factor in the divergence of community case rates and hospital acquired cases appears to be vaccination of NHS staff.

Full detail: [How has the risk of acquiring Covid-19 in hospital changed in the last year?](https://www.nuffieldtrust.org.uk/resource/chart-of-the-week-how-has-the-risk-of-acquiring-covid-19-in-hospital-changed-in-the-last-year)

**Title:** All young people aged 16 and 17 in England to be offered vaccine

Department of Health & Social Care | 15th August 2021

All young people aged 16 to 17 in England are to be offered a first dose of a COVID-19 vaccine by Monday 23 August to give them the vital protection provided by the vaccine before returning to school in September.

People aged 16 and 17 will be able to get vaccinated at one of more than 800 GP-led local vaccination sites. Thousands will be invited including by text and letter to book their appointments through GPs or via walk-in centres.

Full detail: [All young people aged 16 and 17 in England to be offered vaccine](https://www.gov.uk/government/news/all-young-people-aged-16-and-17-in-england-to-be-offered-vaccine-by-next-week)

See also: [All 16 and 17 year olds in the UK to be offered first vaccine dose](https://www.bmj.com/content/374/bmj.n1958) | BMJ

**Title:** Daily contact COVID-19 testing for students effective at controlling transmission in schools

University of Oxford | 23rd July 2021

A study by the University of Oxford has found that daily testing of secondary school students who were in contact with someone with COVID-19 was just as effective in controlling school transmission as the current 10-day contact isolation policy.

The independent study, sponsored by the Department of Health and Social Care and supported by the Department for Education and Office for National Statistics, ran between April and June 2021. The findings of the study have been released as a pre-print.

Further detail: [Daily contact COVID-19 testing for students effective at controlling transmission in schools](https://www.ox.ac.uk/news/2021-07-23-daily-contact-covid-19-testing-students-effective-controlling-transmission-schools)

Full research paper: [A cluster randomised trial of the impact of a policy of daily testing for 2 contacts of COVID-19 cases on attendance and COVID-19 3 transmission in English secondary schools and colleges](http://modmedmicro.nsms.ox.ac.uk/wp-content/uploads/2021/07/dct_schools_trial_preprint_20210722.pdf)

**Title:** Pfizer vaccine’s efficacy declined from 96% to 84% four months after second dose

BMJ | 2021; 374: n1920 | 30th July 2021

The Pfizer-BioNTech vaccine’s efficacy against SARS-CoV-2 peaked at 96.2% at seven days to two months after the second dose and then declined to 83.7% at four months, a preprint from Pfizer has reported.

The preprint, which contains the latest data from the original clinical trial, found an average decline in vaccine efficacy of 6% every two months. Researchers have said that trials to evaluate the efficacy of booster trials after a longer interval are under way. A booster vaccine in England is expected to be rolled out to the people most vulnerable to covid-19 from September.

Further detail: [Pfizer vaccine’s efficacy declined from 96% to 84% four months after second dose](https://www.bmj.com/content/374/bmj.n1920)

Link to preprint: [Six month safety and efficacy of the BNT162b2 mRNA COVID-19 Vaccine](https://www.medrxiv.org/content/10.1101/2021.07.28.21261159v1.full.pdf)

**Title:** Coronavirus infections three times lower in double vaccinated people

Imperial College London | 4th August 2021

New research has found that double vaccinated people were three times less likely than unvaccinated people to test positive for the coronavirus. These results from the Imperial-led REACT-1 study are based on swab tests taken by almost 100,000 people in England between 24 June and 12 July.

The study’s analyses of PCR test results also suggest that fully vaccinated people may be less likely than unvaccinated people to pass the virus on to others, due to having a smaller viral load on average and therefore likely shedding less virus.

Further detail: [Coronavirus infections three times lower in double vaccinated people - REACT](https://www.imperial.ac.uk/news/227713/coronavirus-infections-three-times-lower-double/)

Full research [preprint]: [REACT-1 round 13 final report: exponential growth, high prevalence of SARS-CoV-2 and vaccine effectiveness associated with Delta variant in England during May to July 2021](https://spiral.imperial.ac.uk/bitstream/10044/1/90800/2/react1_r13_final_preprint_final.pdf)

**Title:** Impact of Delta on viral burden and vaccine effectiveness against new SARS-CoV-2 infections in the UK

Nuffield Department of Medicine | 19th August 2021

Having two doses of Covid vaccine remains the best way to protect against the Delta variant. The Oxford-AstraZeneca jab, though initially less effective, offers the same high protection as the Pfizer-BioNTech after four to five months, the largest study of its kind suggests.

Key findings from the study:

* Obtaining two vaccine doses remains the most effective way to ensure protection against the COVID-19 Delta variant of concern dominant in the UK today.
* With Delta, Pfizer-BioNTech and Oxford-AstraZeneca vaccines still offer good protection against new infections, but effectiveness is reduced compared with Alpha.
* Two doses of either vaccine still provided at least the same level of protection as having had COVID-19 before through natural infection; people who had been vaccinated after already being infected with COVID-19 had even more protection than vaccinated individuals who had not had COVID-19 before.
* However, Delta infections after two vaccine doses had similar peak levels of virus to those in unvaccinated people; with the Alpha variant, peak virus levels in those infected post-vaccination were much lower.

Other findings:

* A single dose of the Moderna vaccine has similar or greater effectiveness against the Delta variant as single doses of the other vaccines.
* Two doses of Pfizer-BioNTech have greater initial effectiveness against new COVID-19 infections, but this declines faster compared with two doses of Oxford-AstraZeneca. Results suggest that after four to five months effectiveness of these two vaccines would be similar – however, long-term effects need to be studied.
* The time between doses does not affect effectiveness in preventing new infections, but younger people have even more protection from vaccination than older people.

Full research: [Impact of Delta on viral burden and vaccine effectiveness against new SARS-CoV-2 infections in the UK](https://www.ndm.ox.ac.uk/files/coronavirus/covid-19-infection-survey/finalfinalcombinedve20210816.pdf)

See also:

* [Fully vaccinated people can carry as much delta virus as unvaccinated people, data indicate](https://www.bmj.com/content/374/bmj.n2074) | BMJ
* [Covid vaccines still effective against Delta variant](https://www.bbc.co.uk/news/health-58257863) | BBC News

**Title:** How effective are vaccines against the delta variant?

BMJ | 2021; 374: n1960 | 9th August 2021

The delta variant is now the dominant form of SARS-CoV-2 in the UK and many other countries. This BMJ Feature asks how effective the leading vaccines are against this new threat.

Full detail: [How effective are vaccines against the delta variant?](https://www.bmj.com/content/374/bmj.n1960)

**Title:** Two vaccine doses are crucial for protection against delta, study finds

BMJ | 2021; 374: n2029 | 16th August 2021

The two dose regimen of the Pfizer-BioNTech covid-19 vaccine is 88% effective against symptomatic disease caused by the delta variant, while the Oxford-AstraZeneca vaccine is 67% effective, research has found.

The study, funded by Public Health England, estimated the effectiveness of vaccination against symptomatic disease caused by the delta and alpha variants in people aged 16 or over between 5 April and 16 May 2021. It found that although two doses of either vaccine offered good protection against delta, a single dose of either vaccine was only around 30% (95% confidence interval 25.2% to 35.7%) effective against the variant.

The study, published in the *New England Journal of Medicine*, reported that for the alpha variant the two dose regimen of the Pfizer vaccine was 93.7% effective while AstraZeneca’s was 74.5% effective.

Further detail: [Two vaccine doses are crucial for protection against delta, study finds](https://www.bmj.com/content/374/bmj.n2029)

Full research paper: [Effectiveness of Covid-19 vaccines against the B.1.617.2 (Delta) variant](https://www.nejm.org/doi/pdf/10.1056/NEJMoa2108891?articleTools=true) | New England Journal of Medicine

**Title:** Protection from two doses of vaccine wanes within six months, data suggest

BMJ | 2021; 374: n2113 | 25th August 2021

Protection provided by two doses of the Pfizer and the AstraZeneca covid-19 vaccines wanes within six months, an analysis of UK data suggests. The latest analysis from the Zoe Covid Study, which investigates real world vaccine effectiveness, examined data from positive PCR test results between May and July 2021 among 1.2 million people who had received two doses of Pfizer or AstraZeneca vaccine.

The results, released in a press release, show that protection after two doses of the Pfizer vaccine decreased from 88% at one month to 74% at five to six months; protection for AstraZeneca decreased was from 77% at one month to 67% at four to five months.

The majority of people who had their second dose five to six months ago will be older or vulnerable due to other health reasons, placing them at increased risk of COVID-19 compared to those vaccinated more recently. With high levels of infection in the UK, driven by loosened social restrictions and a highly transmissible variant, this scenario could mean increased hospitalisations and deaths.

Further detail: [Protection from two doses of vaccine wanes within six months, data suggest](https://www.bmj.com/content/374/bmj.n2113)

Press release: [Is COVID vaccine protection fading?](https://covid.joinzoe.com/post/covid-vaccine-protection-fading) | Zoe Covid Study

See also: [Covid infection protection waning in double jabbed](https://www.bbc.co.uk/news/health-58322882) | BBC News

**Title:** Guidance for surveillance of SARS-CoV-2 variants: Interim guidance

World Health Organization | 9th August 2021

This document aims to describe a minimum set of surveillance activities recommended at the national level to detect and monitor the relative prevalence of SARS-CoV-2 variants and outline a set of activities for the characterization and assessment of risk posed by these variants. A set of indicators is also provided to standardize monitoring and public reporting of variant circulation.

Full detail: [Guidance for surveillance of SARS-CoV-2 variants: Interim guidance](https://www.who.int/publications/i/item/WHO_2019-nCoV_surveillance_variants)

**Title:** Impact of physical distancing policy on reducing transmission of SARS-CoV-2 globally

PlosOne | 10th August 2021

COVID-19 was declared a public health emergency by the World Health Organization (WHO) in January 2020. Various physical distancing interventions were introduced to flatten the epidemic curve and reduce the disease burden. This study evaluated the impacts of policy stringency and residents’ compliance on time-varying reproduction number in 17 countries.

The findings show physical distancing policies and residents’ compliance can slow transmission, with the lag-to-effect time varying by policy.

Full detail: [Impact of physical distancing policy on reducing transmission of SARS-CoV-2 globally: Perspective from government’s response and residents’ compliance](https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0255873)

**Title:** Diagnostic accuracy of rapid antigen tests in asymptomatic and presymptomatic close contacts of individuals with confirmed SARS-CoV-2 infection: cross sectional study

BMJ | 2021; 374: n1676 | 27th July 2021

The objective of this study was to assess the diagnostic test accuracy of two rapid antigen tests in asymptomatic and presymptomatic close contacts of people with SARS-CoV-2 infection on day 5 after exposure.

The study finds the sensitivities of both rapid antigen tests in asymptomatic and presymptomatic close contacts tested on day 5 onwards after close contact with an index case were more than 60%, increasing to more than 85% after a viral load cut-off was applied as a proxy for infectiousness.

Full paper: [Diagnostic accuracy of rapid antigen tests in asymptomatic and presymptomatic close contacts of individuals with confirmed SARS-CoV-2 infection: cross sectional study](https://www.bmj.com/content/bmj/374/bmj.n1676.full.pdf)

**Title:** Moderna COVID-19 vaccine approved by MHRA in 12-17 year olds

Medicines and Healthcare products Regulatory Agency | 17th August 2021

An extension to the current UK approval of the Spikevax vaccine (formerly COVID-19 Vaccine Moderna) that allows its use in 12- to 17-year-olds has been authorised by the Medicines and Healthcare products Regulatory Agency (MHRA).

It is for the Joint Committee on Vaccination and Immunisation (JCVI) to advise on whether this age group should be vaccinated with the COVID-19 vaccine made by Moderna.

Full detail: [Moderna COVID-19 vaccine approved by MHRA in 12-17 year olds](https://www.gov.uk/government/news/moderna-covid-19-vaccine-approved-by-mhra-in-12-17-year-olds)

**Title:** (How) can we reach herd immunity?

The Independent Scientific Advisory Group for Emergencies (SAGE) | 20th August 2021

This short-read publication from The Independent Scientific Advisory Group for Emergencies (SAGE) considers the question: (How) can we reach herd immunity?

Full paper: [(How) can we reach herd immunity?](https://www.independentsage.org/wp-content/uploads/2021/08/How_can_we_reach_herd_immunity_final.pdf)

See also:

* [Delta infections threaten herd immunity vaccine strategy](https://www.bmj.com/content/374/bmj.n1933) | BMJ
* [Long term evolution of SARS-CoV-2](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1007566/S1335_Long_term_evolution_of_SARS-CoV-2.pdf) | SAGE

**Title:** UK signs deal with Pfizer/BioNTech for 35 million vaccines

Department of Health and Social Care | 23rd August 2021

The UK has agreed a contract for 35 million more doses of the Pfizer/BioNTech vaccine, to be delivered from the second half of next year. The government is preparing for a booster programme this year to ensure those most vulnerable to COVID-19 are protected. The booster programme will be based on the final advice of the Joint Committee on Vaccination and Immunisation (JCVI), expected in September.

COVID-19 vaccines have saved 95,200 lives. They have also prevented 82,100 hospitalisations and 23.9 million infections in England alone, according to the latest data from Public Health England and Cambridge University.

Full detail: [UK signs deal with Pfizer/BioNTech for 35 million vaccines](https://www.gov.uk/government/news/uk-signs-deal-with-pfizerbiontech-for-35-million-vaccines?utm_medium=email&utm_campaign=govuk-notifications&utm_source=8c00b503-7970-48ae-856b-962bc475a1a1&utm_content=daily)

**Title:** Evaluation of mRNA-1273 SARS-CoV-2 Vaccine in Adolescents

New England Journal of Medicine | 11th August 2021

In a trial of mRNA-1273 or placebo involving 3700 adolescents 12 to 17 years of age, two doses of vaccine stimulated high levels of neutralizing antibodies, with a side-effect profile similar to that seen in other age groups. The incidence of Covid-19 in the unvaccinated group was too low to gauge protection, but Covid-19 did not develop in any vaccinated participants.

Full detail: [Evaluation of mRNA-1273 SARS-CoV-2 vaccine in adolescents](https://www.nejm.org/doi/pdf/10.1056/NEJMoa2109522?articleTools=true)

**Title:** Subcutaneous REGEN-COV Antibody Combination to Prevent Covid-19

New England Journal of Medicine | 4th August 2021

Household contacts of persons infected with SARS-CoV-2 are at risk for infection. A single subcutaneous injection of two anti–SARS-CoV-2 monoclonal antibodies in such persons within 4 days after the detection of infection in a household contact reduced this risk by two thirds in the first 28 days after exposure.

Full paper: [Subcutaneous REGEN-COV antibody combination to prevent Covid-19](https://www.nejm.org/doi/pdf/10.1056/NEJMoa2109682?articleTools=true)

**Title:** New study to test third COVID-19 vaccine for people with weakened immune systems

Department of Health and Social Care | 24th August 2021

A new clinical trial to determine whether a third dose of vaccine will improve the immune response for people who have weakened immune systems is launching in the UK.

The study, OCTAVE DUO, will offer people who are immunosuppressed or immunocompromised a Pfizer, Moderna or Novavax vaccine to determine whether this will give a stronger immune response than 2 doses. The £2.2 million study will build on the OCTAVE trial, led by the University of Glasgow and co-ordinated by the University of Birmingham’s Cancer Research UK Clinical Trials Unit.

The OCTAVE trial has published preliminary data showing that 89% of people who are immunocompromised or immunosuppressed generate antibodies following vaccination, and 60% generated a strong antibody response following 2 doses of a vaccine.

Further detail: [New study to test third COVID-19 vaccine for people with weakened immune systems](https://www.gov.uk/government/news/new-study-to-test-third-covid-19-vaccine-for-people-with-weakened-immune-systems)

**Title:** Covid-19 booster vaccines: What we know and who’s doing what

 BMJ | 2021; 374: n2082 | 20th August 2021

The virulence of the delta variant has prompted many countries to start administering booster vaccines. This article looks at what is happening where, and asks:

* Do we need booster doses?
* Which countries are planning booster shots?
* Will people get the same vaccine brand for their booster?
* Might we need annual covid vaccinations?

Full detail: [Covid-19 booster vaccines: What we know and who’s doing what](https://www.bmj.com/content/374/bmj.n2082)

**Title:** Changing composition of SARS-CoV-2 lineages and rise of Delta variant in England

EClinicalMedicine | 31st July 2021

Since its emergence in Autumn 2020, the SARS-CoV-2 Variant of Concern (VOC) B.1.1.7 (WHO label Alpha) rapidly became the dominant lineage across much of Europe. Simultaneously, several other VOCs were identified globally. Unlike B.1.1.7, some of these VOCs possess mutations thought to confer partial immune escape. Understanding when and how these additional VOCs pose a threat in settings where B.1.1.7 is currently dominant is vital.

The outcome of competition between variants depends on a wide range of factors such as intrinsic transmissibility, evasion of prior immunity, demographic specificities and interactions with non-pharmaceutical interventions. The presence and rise of non-B.1.1.7 variants in March likely was driven by importations and some community transmission. There was competition between non-B.1.17 variants which resulted in B.1.617.2 becoming dominant in April and May with considerable community transmission. Our results underscore that early detection of new variants requires a diverse array of data sources in community surveillance. Continued real-time information on the highly dynamic composition and trajectory of different SARS-CoV-2 lineages is essential to future control efforts

Full paper: [Changing composition of SARS-CoV-2 lineages and rise of Delta variant in England](https://www.thelancet.com/action/showPdf?pii=S2589-5370%2821%2900344-8)

**Title:** Early detection of COVID-19 in the UK using self-reported symptoms: a large-scale, prospective, epidemiological surveillance study

EClinicalMedicine | 31st July 2021

Self-reported symptoms during the COVID-19 pandemic have been used to train artificial intelligence models to identify possible infection foci. To date, these models have only considered the culmination or peak of symptoms, which is not suitable for the early detection of infection. We aimed to estimate the probability of an individual being infected with SARS-CoV-2 on the basis of early self-reported symptoms to enable timely self-isolation and urgent testing.

The authors conclude that early detection of SARS-CoV-2 infection is feasible with their model. Such early detection is crucial to contain the spread of COVID-19 and efficiently allocate medical resources.

Full paper: [Early detection of COVID-19 in the UK using self-reported symptoms: a large-scale, prospective, epidemiological surveillance study](https://www.thelancet.com/action/showPdf?pii=S2589-7500%2821%2900131-X)

workforce wellbeing

**Title:** Predictors and rates of PTSD, depression and anxiety in UK frontline health and social care workers during COVID-19

European Journal of Psychotraumatology | The Mental Elf | 10th August 2021

Studies have shown that working in frontline healthcare roles during epidemics and pandemics was associated with PTSD, depression, anxiety, and other mental health disorders.

The objectives of this study were to identify demographic, work-related and other predictors for clinically significant PTSD, depression, and anxiety during the COVID-19 pandemic in UK frontline health and social care workers (HSCWs), and to compare rates of distress across different groups of HCSWs working in different roles and settings.

Nearly 58% of respondents met the threshold for a clinically significant disorder (PTSD = 22%; anxiety = 47%; depression = 47%), and symptom levels were high across occupational groups and settings.

This study identified predictors of clinically significant distress during COVID-19 and highlights the need for reliable access to PPE and further investigation of barriers to communication between managers and staff.

Full paper: [Predictors and rates of PTSD, depression and anxiety in UK frontline health and social care workers during COVID-19](https://www.tandfonline.com/doi/pdf/10.1080/20008198.2021.1882781)

Summary: [PTSD, anxiety and depression in UK frontline health care workers during COVID-19](https://www.nationalelfservice.net/mental-health/ptsd/covid-19-mental-health-healthcare-workers/) | The Mental Elf

**Title:** Interventions to address mental health issues in healthcare workers during infectious disease outbreaks: A systematic review

Journal of Psychiatric Research | The Mental Elf | 6th August 2021

The potential impact on the mental health of healthcare workers has been widely discussed during Covid-19. This review looked to understand the potential interventions to tackle mental health problems in healthcare workers, summarising interventions from previous disease outbreaks and reporting their effectiveness.

The review presents a variety of interventions to support the mental health of healthcare workers in pandemic disease outbreaks. Interventions ought to address the breadth of support that is required for staff, including informational support, equipment and supplies, organisational support approaches as well as emotional and psychological interventions.

Further detail: [Interventions to address mental health issues in healthcare workers during infectious disease outbreaks: A systematic review](https://www.sciencedirect.com/science/article/abs/pii/S0022395621000868?via%3Dihub)

Summary: [Mental health interventions for healthcare staff in infectious disease outbreaks](https://www.nationalelfservice.net/publication-types/systematic-review/mental-health-healthcare-staff/) | The Mental Elf

**Title:** One third of trainees are affected by burnout, GMC survey finds

BMJ | 2021; 374: n1884 | 27th July 2021

The covid-19 pandemic has increased the level of burnout in trainees and risks reversing recent improvements to their workload and wellbeing, the General Medical Council (GMC) has warned.

Of the 46 793 trainees in the UK who completed the annual national survey (a 76% response rate), 33% said that they felt burnt out from work to a high or very high degree, and 43% found their work emotionally exhausting to a high or very high degree. Questions on burnout were added to the survey in 2018, and this year’s results are the worst recorded.

When the survey asked trainees whether they felt worn out at the end of the working day, over 17% said that they always did and 42% said that they often did. Over a third (37%) reported that they “always” or “often” felt exhausted in the morning at the thought of another day at work.

Further detail: [One third of trainees are affected by burnout, GMC survey finds](https://www.bmj.com/content/374/bmj.n1884)

Full survey: [General Medical Council. National training survey 2021: results](https://www.gmc-uk.org/-/media/documents/national-training-survey-results-2021---summary-report_pdf-87050829.pdf)

**Title:** Undermined and undervalued: how the pandemic exacerbated moral injury and burnout in the NHS

BMJ | 2021; 374: n1858 | 29th July 2021

Stories of stress and mental health problems because of work are nothing new for NHS staff. But as this BMJ Feature piece explains, the pandemic has led to increased recognition of “burnout”—the emotional, physical, and mental exhaustion caused by excessive and prolonged stress—and “moral injury”—when professionals are forced to act against their conscience.

Full detail: [Undermined and undervalued: how the pandemic exacerbated moral injury and burnout in the NHS](https://www.bmj.com/content/374/bmj.n1858)

**Title:** Should covid vaccination be mandatory for health and care staff?

BMJ | 2021; 374: n1903 | 5th August 2021

New English law will make vaccination a condition of employment for eligible care home workers, following similar moves in Italy, France, and Greece for healthcare staff. This article asks if Covid vaccination should be mandatory for health and care staff.

One argument suggests mandatory vaccination is reasonable because care institutions have a duty to protect patients; but another argues that that such a blunt approach is unnecessary and could be counterproductive.

Full detail: [Should covid vaccination be mandatory for health and care staff?](https://www.bmj.com/content/374/bmj.n1903)

Linked BMJ commentaries:

* [Protect patients like me—make covid vaccines mandatory for all eligible staff in care settings](https://www.bmj.com/content/374/bmj.n1921)
* [Mandatory covid vaccination blames individual care home workers for government failures](https://www.bmj.com/content/374/bmj.n1902)

See also: [Vaccinating healthcare workers against covid-19](https://www.bmj.com/content/374/bmj.n1975) | BMJ [editorial]

**Title:** Covid grief has cracked us open: how clinicians respond could reshape attitudes to bereavement

BMJ | 2021; 374: n1803 | 10th August 2021

People working in healthcare experience grief professionally as well as personally and societally. This BMJ Feature argues that attitudinal shifts are needed to improve access to formal and informal support and make grief a less lonely experience. It suggests that Doctors’ openness and willingness to show vulnerability could help.

Full detail: [Covid grief has cracked us open: how clinicians respond could reshape attitudes to bereavement](https://www.bmj.com/content/374/bmj.n1803)

other

**Title:** Wider impacts of COVID-19 on physical activity, deconditioning and falls in older adults

Public Health England | 12th August 2021

This report looks at how the wider impacts of COVID-19 have affected older people (65 years and over), with a focus upon deconditioning and falls. Estimates of these impacts on physical activity levels and rates of falls in older people are provided.

The report also summarises recommendations aimed at mitigating these impacts and to improve older adult mental and physical health. It provides an estimation of the impacts of coronavirus (COVID-19) on physical activity and falls in older adults and recommendations to mitigate these effects.

Full report: [Wider impacts of COVID-19 on physical activity, deconditioning and falls in older adults](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1010501/HEMT_Wider_Impacts_Falls.pdf)

**Title:** A perfect storm - health inequalities and the impact of COVID-19

Local Government Association| 30th July 2021

This report warns that Covid-19 has created a ‘perfect storm’ of existing inequality and disease, leading to higher rates of coronavirus infections and death amongst the most disadvantaged people. It says it is vital to act now and drive forward work programmes which reduce inequalities, prevent poor health and improve people’s opportunities to live healthier, more active lives.

Examples from local authorities are included, ranging from providing mental health services for tackling loneliness and isolation, to accessing essential items such as food, medicine and financial support.

Full report: [A perfect storm - health inequalities and the impact of COVID-19](https://www.local.gov.uk/perfect-storm-health-inequalities-and-impact-covid-19)

Press release: [COVID-19 has created ‘perfect storm’ of health inequalities](https://local.gov.uk/about/news/lga-covid-19-has-created-perfect-storm-health-inequalities)

**Title:** The role of the ambulance sector in transforming services and coping with the long-term impact of Covid-19

NHS Providers | 12th August 2021

This report, produced together with the Association of Ambulance Chief Executives (AACE), says ambulance services should play a pivotal role in helping the NHS pull through the pandemic, bear down on the care backlog and transform services for patients.

It sets out how the skills, scale and reach of ambulance services mean they can be key to planning and delivering high quality care as close to home as possible: a central ambition of the NHS Long Term Plan.

The report sets out how services are responding to extraordinary pressures, with growing demand outpacing funding increases and the knock-on impact of very stretched primary and social care. Demand for emergency care has reached record levels, causing high rates of handover delays despite the best efforts of staff.

Full report: [The role of the ambulance sector in transforming services and coping with the long-term impact of Covid-19](https://nhsproviders.org/rapid-response)

Press release: [At the sharp end: ambulance services key to NHS transformation and coping with COVID-19 long term](https://nhsproviders.org/news-blogs/news/at-the-sharp-end-ambulance-services-key-to-nhs-transformation-and-coping-with-covid-19-long-term)

**Title:** Association Between Mood Disorders and Risk of COVID-19 Infection, Hospitalization, and Death

JAMA Psychiatry | 28th July 2021

Preexisting noncommunicable diseases (eg, diabetes) increase the risk of COVID-19 infection, hospitalization, and death. Mood disorders are associated with impaired immune function and social determinants that increase the risk of COVID-19.

The objective of this study was to assess whether preexisting mood disorders are associated with a higher risk of COVID-19 susceptibility, hospitalization, severe complications, and death.

In this systematic review and meta-analysis of more than 91 million people, individuals with preexisting mood disorders, compared with those without mood disorders, had significantly higher pooled odds ratios for COVID-19 hospitalization and death. There were no associations between preexisting mood disorders and risk of COVID-19 infection or severe events.

These results suggest that individuals with mood disorders should be categorized as an at-risk group for COVID-19 hospitalization and death, providing basis for vaccine prioritization.

Full detail: [Association between mood disorders and risk of COVID-19 infection, hospitalization, and death](https://jamanetwork.com/journals/jamapsychiatry/article-abstract/2782453)

**Title:** How many variants are there, and what do we know about them?

BMJ | 2021; 374: n1971 | 19th August 2021

Eight notable variants of SARS-CoV-2 have been found since September 2020. This BMJ Feature piece reviews what we know about them.

Full detail: [How many variants are there, and what do we know about them?](https://www.bmj.com/content/374/bmj.n1971)

**Title:** Hospital bed occupancy rates in England reach dangerously high levels

BMJ | 2021; 374: n2079 | 20th August 2021

The number of beds occupied in hospitals in England is nearing levels seen before the covid-19 pandemic, according to new data.

Overall, 83.8% of the 123 707 beds available overnight were occupied between April and June this year, show bed occupancy rates data from NHS England.

More worryingly, 82 trusts exceeded the 85% rate which is generally considered to be the limit at which hospitals are able to work safely and effectively. Moreover, 35 of these trusts had reached occupancy levels above 90%, while six trusts reached levels above 95%.

Further detail: [Hospital bed occupancy rates in England reach dangerously high levels](https://www.bmj.com/content/374/bmj.n2079)

See also: [Bed availability and occupancy data: overnight. 19 August 2021](https://www.england.nhs.uk/statistics/statistical-work-areas/bed-availability-and-occupancy/) | NHS England

**Title:** Children born during the pandemic score lower on cognitive tests, study finds

BMJ | 2021; 374: n2031 | 16th August 2021

Children born during the pandemic score markedly lower on standard measures of verbal, motor, and overall cognitive ability, US researchers have found.

In a longitudinal study of 672 children from Rhode Island that has run since 2011, those born after the pandemic began showed results on the Mullen scales of early learning that corresponded to an average IQ score of 78, a drop of 22 points from the average of previous cohorts.

The researchers have largely ruled out a direct effect of the virus, as mothers or children with a history of testing positive for covid-19 were excluded from the analysis. Instead, the authors say, reduced interaction with parents and less outdoor exercise are likely culprits, along with effects that occurred during pregnancy.

The study, which was funded by the US National Institutes of Health is awaiting peer review before publication in JAMA Pediatrics, but a preprint copy is available online.

Further detail: [Children born during the pandemic score lower on cognitive tests, study finds](https://www.bmj.com/content/374/bmj.n2031)

Research paper [preprint]: [Impact of the COVID-19 Pandemic on Early Child Cognitive Development: Initial Findings in a Longitudinal Observational Study of Child Health](https://www.medrxiv.org/content/10.1101/2021.08.10.21261846v1) | MedRxiv

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