COVID-19 weekly update

16th April 2021

**clinical management**

**Title:** Inhaled budesonide for COVID-19 in people at higher risk of adverse outcomes in the community: interim analyses from the PRINCIPLE trial

medRxiv | 12th April 2021

 A clinical trial in more than 4,600 people at risk of serious COVID-19 found that an inhalable asthma medication shortened the duration of disease symptoms by about 3 days.

The asthma drug budesonide is an inexpensive and widely available inhalable steroid. The tiral at the University of Oxford, UK tested budesonide in people who had COVID-19 symptoms but were not hospitalized.

Participants either were over the age of 65 or were more than 50 years old and had conditions that increased their risk of COVID-19 complications. Participants were randomly assigned to either receive the drug or serve in a control group, but none took a placebo. Both participants and investigators knew who had received the drug.

Those who took budesonide twice daily for two weeks reported that their COVID-19 symptoms ended three days earlier than those who did not use the steroid. The results have not yet been peer reviewed.

Full detail: [Inhaled budesonide for COVID-19 in people at higher risk of adverse outcomes in the community: interim analyses from the PRINCIPLE trial](https://www.medrxiv.org/content/10.1101/2021.04.10.21254672v1)

**Title:** Colleges publish guidance after patients attend emergency departments with vaccine concerns

BMJ | 2021; 373: n960 | 13th April 2021

A group of royal colleges has produced guidance for doctors seeing patients who have concerns about symptoms after receiving the Oxford AstraZeneca covid-19 vaccine.

The Royal College of Emergency Medicine, the Society for Acute Medicine, and the Royal College of Physicians say that anyone who presents with symptoms suggestive of covid-19 vaccine induced thrombosis and thrombocytopenia (VITT) should have a full blood count to check their platelet level. Symptoms of concern include persistent or severe headaches, seizures, or focal neurology; shortness of breath, persistent chest, or abdominal pain; and swelling, redness, pallor, or cold lower limbs.

The guidance says that VITT is unlikely if the platelet count is greater than 150 × 109/L. But if platelets are below this level then a clotting and d-dimer test should be requested and VITT suspected if fibrinogen is low (d-dimer >2000). Patients with suspected VITT and headache symptoms should have cerebral venous imaging with computed tomography or magnetic resonance venography.

Full detail: [Colleges publish guidance after patients attend emergency departments with vaccine concerns](https://www.bmj.com/content/373/bmj.n960?utm_source=twitter&utm_medium=social&utm_term=hootsuite&utm_content=sme&utm_campaign=usage)

See also: [ED-AM vaccine pathway concerns](http://www.rcem.ac.uk/docs/Policy/ED-AM%20%20Vaccine%20pathway%20concerns%20-%20RCP%20-%20SAM%20-%20RCEM.pdf) | Royal College of Emergency Medicine

**Title:** Information for healthcare professionals on blood clotting following COVID-19 vaccination

Public Health England | updated 9th April 2021

In recent weeks, there have been a small number of reports from the UK and internationally of an extremely rare condition characterised by thromboembolic events (blood clots) accompanied by thrombocytopenia (low platelets) following the first dose of the AstraZeneca (AZ) COVID-19 vaccination.

This guidance is subject to extensive and regular revisions and Public Health England recommend linking to the latest version to ensure that you are giving the most up-to-date clinical advice and guidance.

Full detail: [Information for healthcare professionals on blood clotting following COVID-19 vaccination](https://www.gov.uk/government/publications/covid-19-vaccination-blood-clotting-information-for-healthcare-professionals/information-for-healthcare-professionals-on-blood-clotting-following-covid-19-vaccination)

**Title:** Thrombosis after covid-19 vaccination

BMJ | 2021; 373: n958 | 14th April 2021

There is still much we do not know about thromboses potentially linked to covid-19 vaccination, and much of the information used by the regulatory authorities in forming their opinions has not been made public. Regulatory agencies in Europe and the UK have acted with commendable swiftness, but they must publish not only their conclusions but also their data and analyses.

This BMJ editorial argues that the benefits of the AstraZeneca vaccine far outweigh the risks for all adult age groups, especially when the potential for long covid is considered. People should accept vaccination when it is offered but seek medical advice if they develop the following symptoms listed by Public Health England:

* A new, severe headache which is not helped by usual painkillers or is getting worse
* A headache that seems worse when lying down or bending over
* An unusual headache that may be accompanied by:
	+ Blurred vision, nausea, and vomiting
	+ Difficulty with your speech
	+ Weakness, drowsiness, or seizures
	+ New, unexplained pinprick bruising or bleeding
	+ Shortness of breath, chest pain, leg swelling, or persistent abdominal pain

Full editorial: [Thrombosis after covid-19 vaccination](https://www.bmj.com/content/373/bmj.n958)

**Title:** Thrombotic Thrombocytopenia after ChAdOx1 nCov-19 Vaccination

New England Journal of Medicine | 9th April 2021

In this case series, investigators report a very rare but life-threatening sequela of ChAdOx1 nCoV-19 vaccination. Beginning 5 to 16 days after a first injection, some patients had symptoms consistent with thrombocytopenia, disseminated intravascular coagulation, and thromboses, including cerebral venous sinus thrombosis with catastrophic outcome. An anti–PF4 antibody capable of platelet activation appears to be the cause. Intravenous immune globulin may be therapeutic.

Full article: [Thrombotic Thrombocytopenia after ChAdOx1 nCov-19 Vaccination](https://www.nejm.org/doi/pdf/10.1056/NEJMoa2104840?articleTools=true)

**Title:** Thrombosis and Thrombocytopenia after ChAdOx1 nCoV-19 Vaccination

New England Journal of Medicine | 9th April 2021

This report describes a very rare but life-threatening sequela of vaccination with ChAdOx1 nCoV-19. Within 10 days after a first injection, five health care workers presented with thrombocytopenia and thromboses, including cerebral venous sinus thrombosis with catastrophic outcome. The apparent cause is an anti-PF4 antibody capable of platelet activation; intravenous immune globulin may be therapeutic.

Full article: [Thrombosis and Thrombocytopenia after ChAdOx1 nCoV-19 Vaccination](https://www.nejm.org/doi/pdf/10.1056/NEJMoa2104882?articleTools=true)

**Title:** Risk of CVT after COVID-19 is approximately 8-10 times that reported for the vaccines, reports Oxford study using US data

OFS | 15th April 2021

The experts behind this cohort study estimated the incidence of Cerebral venous thrombosis (CVT) occurring in confirmed COVID-19 cases and compared this incidence to two other groups: people who received a COVID-19 mRNA vaccine, and a cohort of patients with influenza.

Using data from 81 million US patients, 513,284 meeting the criteria (diagnosed with Covid-19 between January 20, 2020 and March 25, 2021) for inclusion were selected for the study. Their analysis indicates that:

"The risk of being diagnosed with a CVT was significantly higher in the two weeks after COVID-19 compared to influenza or after receiving an mRNA."

The authors of the study report the absolute incidence of CVT in the 14 days after COVID-19 diagnosis and show that this is substantially greater than for the comparison groups. Although the magnitude of the risk cannot be quantified with confidence, the risk after COVID-19 is approximately 8-10 times that reported for the vaccines, and about 100-fold increased compared to the population rate.

Full detail: [Cerebral venous thrombosis: a retrospective cohort study of 513,284 confirmed COVID-19 cases and a comparison with 489,871 people receiving a COVID-19 mRNA vaccine](https://osf.io/a9jdq/)

See also: [Brain clots 'more likely' with Covid infection than vaccine](https://www.bbc.co.uk/news/health-56760163) | BBC

**Title:** Diagnostic performance of different sampling approaches for SARS-CoV-2 RT-PCR testing: a systematic review and meta-analysis

The Lancet Infectious Diseases | 12th April 2021

The comparative performance of different clinical sampling methods for diagnosis of SARS-CoV-2 infection by RT-PCR among populations with suspected infection remains unclear. This meta-analysis aims to systematically compare the diagnostic performance of different clinical specimen collection methods.

The review suggests that, compared with the gold standard of nasopharyngeal swabs, pooled nasal and throat swabs offered the best diagnostic performance of the alternative sampling approaches for diagnosis of SARS-CoV-2 infection in ambulatory care. Saliva and nasal swabs gave comparable and very good diagnostic performance and are clinically acceptable alternative specimen collection methods. Throat swabs gave a much lower sensitivity and positive predictive value and should not be recommended.

Self-collection for pooled nasal and throat swabs and nasal swabs was not associated with any significant impairment of diagnostic accuracy. The results also provide a useful reference framework for the proper interpretation of SARS-CoV-2 testing results using different clinical specimens.

Full paper: [Diagnostic performance of different sampling approaches for SARS-CoV-2 RT-PCR testing: a systematic review and meta-analysis](https://www.thelancet.com/action/showPdf?pii=S1473-3099%2821%2900146-8)

**Title:** How is elective care in England coping with the continuing impact of COVID-19?

The Health Foundation | 13th April 2021

The NHS was placed under extreme strain during the second wave of the virus. In the first 3 weeks of 2021, more than 3,000 new patients with COVID-19 were admitted to hospital every single day.

What consequences did this have for the growing backlog of patients needing routine hospital services? How big of a setback has the NHS experienced in recent months? And was the impact the same across different clinical specialties or particular parts of England?

This analysis looks at what we know about the impact of the second wave of the COVID-19 pandemic on elective care in England.

* While the NHS delivered a remarkable amount of elective treatment during the second wave of the pandemic, the pressure of caring for large numbers of patients seriously unwell with COVID-19 has led to longer delays for the growing number of patients on the waiting list.
* Data on clinical pathways show that four million fewer people completed elective treatment in 2020 compared with 2019 (down from 16 million to 12 million).
* The rapid expansion of remote consultations helped limit the disruption caused by the pandemic, but patients who need to be admitted to hospital for treatment are tending to wait longer than those who can be diagnosed and treated remotely.
* Services in every part of England were placed under enormous strain during the pandemic, but the varying impact those pressures had on routine hospital services broadly reflects regional differences in COVID-19 infection rates and hospitalisations.
* Just as COVID-19 has exacerbated existing inequalities in other parts of life, access to elective treatment fell further in the most deprived areas of England during 2020 than in less deprived areas.
* As well as fewer patients being treated, 2020 saw six million fewer people referred into consultant-led elective care than in 2019. These 'missing patients' remain the biggest unknown in planning to address the backlog of unmet need created by the pandemic.
* The waiting list has now reached the highest level since comparable records began, with more patients experiencing long delays in diagnosis and treatment. The waiting list could still grow substantially depending on how and when the 'missing patients' are belatedly added.

Full detail: [Longer waits, missing patients and catching upHow is elective care in England coping with the continuing impact of COVID-19?](https://www.health.org.uk/news-and-comment/charts-and-infographics/how-is-elective-care-coping-with-the-continuing-impact-of-covid-19)

**recovery**

**Title:** **Title:** Gender divide: a post-COVID recovery must address pandemic inequalities

The Health Foundation | 7th April 2021

The COVID-19 pandemic has affected us all. However, it’s clear women across the UK have faced particular challenges over the past year. From key workers, the majority of whom are female, to mothers supporting their children with home learning – often combined with working from home – women have shown incredible resilience, but at what risk to their long-term health?

Full detail: [Gender divide: a post-COVID recovery must address pandemic inequalities](https://www.health.org.uk/news-and-comment/blogs/gender-divide-a-post-covid-recovery-must-address-pandemic-inequalities)

**Title:** Health of women and children is central to covid-19 recovery

BMJ | 2021; 373: n899 | 14th April 2021

This BMJ analysis argues that new economic policies focusing on the wellbeing of women and children will produce a fairer, stronger, and more resilient society

Covid-19 has widened longstanding health and socioeconomic inequalities affecting women and children. The effects will be seen for many years because the wellbeing of women and children is central to population health and resilience across generations, which in turn affects sustained economic recovery.

Scientists, societies, and economists have long marginalised the health and wellbeing of women and children, but the pandemic has forced new behaviours and ways of working and brought about the collapse of industries that previously seemed invincible. This has led to a questioning of previous norms and provides a window of opportunity for change. This article examines the scientific, rights based, and economic rationale for post-pandemic investment in the health and wellbeing of women and children.

Full detail: [Health of women and children is central to covid-19 recovery](https://www.bmj.com/content/373/bmj.n899)

**Title:** Crisis, Communities, Change. Demands for an equitable recovery

Royal Society for Arts, Manufactures and Commerce (RSA) | 12th April 2021

This report explores how communities have fared during the pandemic. The survey of 2,600 people in Great Britain, including a weighted sample of 1,000 people from ethnic minority backgrounds, was carried out by Savanta ComRes for the RSA.

Amongst the findings was that discrimination in local services was twice as high among ethnic minorities: 52 per cent of Asian and 50 per cent of Black respondents have faced discrimination when accessing local services – compared to 19 per cent of the white population. The data suggests that institutional distrust because of discrimination may play a role in vaccine hesitancy.

The report also finds that ethnic minority groups have been worse impacted by Covid:

* Minority groups have struggled to access government support: 46% of Asian respondents, 41% of those with mixed ethnic backgrounds and 39% of Black respondents say they have struggled or been unable to access government support, despite being eligible for it.
* These issues are compounded by issues with living space and caring responsibilities. Asian, Mixed and Black respondents are twice as likely to say that they have struggled during the pandemic due to a lack of space at home than White respondents.

Full report: [Crisis, Communities, Change. Demands for an equitable recovery](https://www.thersa.org/globalassets/_foundation/new-site-blocks-and-images/reports/2021/04/rsa_communities-polling-briefing.pdf)

Press release: [Ethnic minorities twice as likely to face discrimination in local services](https://www.thersa.org/press/releases/2021/ethnic-minorities-twice-as-likely-to-face-discrimination-in-local-services)

**Title:** COVID-19 mental health support programme made free for all

Health Tech Newspaper | April 8th 2021

A digital mental health platform is to be made free for all . Silver Cloud is  an informative online therapy programme proven to help support mental health. The ‘Our Space From Covid programme’ is made up of six modules, each addressing issues you may be experiencing due to the COVID-19 Pandemic.

Each module provides clinically-backed support for trouble sleeping, coping with stress, developing mindfulness, financial worries and experiencing grief and loss.

SilverCloud is now offering this service completely free of charge and for anyone to use. The average module takes 30 minutes to complete and is accessible 24/7 from a smartphone, tablet or computer.

Full details about the programme are available from [HTN](https://htn.co.uk/2021/04/08/covid-19-mental-health-support-programme-made-free-for-all/)

Silver Cloud: [Our Space from Covid](https://www.silvercloudhealth.com/uk/landing-page/space-from-covid#space-from-covid)

**Title:** Unemployment and mental health: Why both require action for our COVID-19 recovery

The Health Foundation | 16th April 2021

Unemployment has a detrimental impact on mental health, as does poor quality employment. This article is concerned mainly with unemployment and mental health. Entering the pandemic, unemployment in the UK was at a historic low, but has since begun to rise, and is expected to rise further, as a result of pandemic restrictions.

Two areas that have felt the continued impact of those restrictions are the UK’s labour market and the mental health of the population. The complex connection between mental health and unemployment means that systems designed to address one area must not neglect the other area.

Despite the extension of the Coronavirus Job Retention Scheme to the end of September, the unemployment rate is still projected to reach a 7-year high by the end of 2021. Policies announced in the Budget are rightly focused on economic recovery and tackling the expected rise in unemployment. However, their impact will fall short unless they also tackle the mental health consequences of the pandemic and unemployment.

Full detail: [Unemployment and mental health: Why both require action for our COVID-19 recovery](https://www.health.org.uk/publications/long-reads/unemployment-and-mental-health)

**Title:** SARS-CoV-2 infection rates of antibody-positive compared with antibody-negative health-care workers in England: a large, multicentre, prospective cohort study (SIREN)

The Lancet | 9th April 2021

Increased understanding of whether individuals who have recovered from COVID-19 are protected from future SARS-CoV-2 infection is an urgent requirement. We aimed to investigate whether antibodies against SARS-CoV-2 were associated with a decreased risk of symptomatic and asymptomatic reinfection.

A previous history of SARS-CoV-2 infection was associated with an 84% lower risk of infection, with median protective effect observed 7 months following primary infection. This time period is the minimum probable effect because seroconversions were not included. This study shows that previous infection with SARS-CoV-2 induces effective immunity to future infections in most individuals.

Full article: [SARS-CoV-2 infection rates of antibody-positive compared with antibody-negative health-care workers in England: a large, multicentre, prospective cohort study (SIREN)](https://www.thelancet.com/action/showPdf?pii=S0140-6736%2821%2900675-9)

**Infection control**

**Title:** Moderna jabs mark new milestone in NHS vaccination programme

NHS England | 13th April 2021

The first Moderna jabs will be delivered in England as the NHS vaccination programme reaches another milestone. More than 20 sites, including the Sheffield Arena, will initially use the newest vaccine, as the NHS continues to expand the vaccination programme.

For those aged 18-29 who are eligible for a jab, the Moderna vaccine provides another alternative to the AstraZeneca vaccine, in line with updated MHRA guidance last week.

More than 27 million people in England have now received their first jab, with more than 6.1 million second jabs also being given.

Full detail: [Moderna jabs mark new milestone in NHS vaccination programme](https://www.england.nhs.uk/2021/04/moderna-jabs-mark-new-milestone-in-nhs-vaccination-programme/)

**Title:** Government hits vaccination target as PM praises "precious protection" offered by jabs

Prime Minister's Office| 12th April 2021

All adults over 50, the clinically vulnerable and health and social care workers have now been offered a Covid-19 jab, as the government prepares to move into the next phase of the Covid-19 vaccination programme. The target was reached ahead of schedule, with the government having pledged to offer a first dose to priority cohorts 1-9 by 15 April.

Nearly 40 million vaccines have now been given in total, with adults under 50 expected to begin to be invited in the coming days.

Full detail: [Government hits vaccination target as PM praises "precious protection" offered by jabs](https://www.gov.uk/government/news/government-hits-vaccination-target-as-pm-praises-precious-protection-offered-by-jabs)

See also: [UK moves into next phase of vaccine roll-out as government target hit early](https://www.gov.uk/government/news/uk-moves-into-next-phase-of-vaccine-roll-out-as-government-target-hit-early) | Department of Health and Social Care

**Title:** Comparing COVID-19 Vaccine Schedule Combinations - Com-COV2

University of Oxford | 14th April 2021

A study led by experts at the University of Oxford is trialling and comparing the different Covid-19 vaccines to determine whether different vaccines can be 'mixed and matched'.

The "blind" trial is recuriting people agde over 50 who have already received their first dose of the Covid-19 vaccine (Pfizer or Astra-Zeneca), they will be randomised to receive either the same again Astra-Zeneca or Pfizer, or Moderna or Novavax. Participants will not know which vaccine as a booster they have receieved until the trial ends.

* Between 5 and 7 routine blood tests will be taken over 10 months to look at the immune responses to the vaccine depending on the group you are in.
* Participants will need to complete an online diary for up to 28 days following the vaccine received in the trial
* Participants should expect their involvement in the trial to last approximately 10 months

Further details about the Com-COV 2 trial are available from the [University of Oxford](https://comcovstudy.org.uk/about-com-cov2)

See also:

* [Moderna and Novavax vaccines to be tested in mixing vaccines trial](https://www.bmj.com/content/373/bmj.n971) | BMJ
* ['Mix and match' UK Covid vaccine trial expanded](https://www.bbc.co.uk/news/health-56730526) | BBC News

**Title:** Single dose of Pfizer or AstraZeneca vaccine produces strong antibody response in over 80s

BMJ | 2021; 373: n979 | 15th April 2021

A single dose of the Pfizer or Oxford-AstraZeneca covid-19 vaccine produces equivalent antibody responses five weeks after vaccination, a small study looking at people over 80 has found.

The study, led by University of Birmingham researchers and made available through a preprint, found that antibodies specific to the SARS-CoV-2 spike protein were present in most people in both groups—93% after the Pfizer vaccine and 87% after the AstraZeneca vaccine.

Researchers have said that these findings are “reassuring” for countries that decided to delay second doses in favour of vaccinating more people with a first dose.

Further detail: [Single dose of Pfizer or AstraZeneca vaccine produces strong antibody response in over 80s](https://www.bmj.com/content/373/bmj.n979)

Full research: [Single vaccination with BNT162b2 or ChAdOx1 in older people induces equivalent antibody generation but enhanced cellular responses after ChAdOx1](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3825573) | Preprints with The Lancet

**Title:** Spike Antibody Levels of Nursing Home Residents With or Without Prior COVID-19 3 Weeks After a Single BNT162b2 Vaccine Dose

JAMA | 15th April 2021

This study compares IgG antibody levels after a single dose of the BNT162b2 (Pfizer-BioNTech) vaccine in nursing home residents with vs without prior COVID-19.

This preliminary study suggests that a single dose of BNT162b2 vaccine may be sufficient to obtain a high level of S-protein IgG antibody in nursing home residents previously diagnosed with COVID-19 based on RT-PCR results. This is in line with results based on IgG to spike trimer and neutralization antibody titers reported among health care workers with prior COVID-19 (diagnosed using SARS-CoV-2 IgG).

Measuring S-protein IgG antibody levels just before the second vaccine dose could be useful in determining whether a second dose is required in individuals whose infection history is unknown. This could limit possible adverse effects related to reactogenicity in previously infected patients and spare precious vaccine doses.

Full detail: [Spike antibody levels of nursing home residents with or without prior COVID-19 3 weeks after a single BNT162b2 vaccine dose](https://jamanetwork.com/journals/jama/fullarticle/2778926)

**Title:** BNT162b2 mRNA Covid-19 Vaccine in a Nationwide Mass Vaccination Setting

New England Journal of Medicine | 15th April 2021

In this study, data from Israel’s largest health care organization were used to evaluate the effectiveness of the BNT162b2 mRNA vaccine. Nearly 600,000 people were followed after vaccination for infection, hospitalization, and severe Covid-19.

Estimated vaccine effectiveness in preventing death was 72% during the period from day 14 through day 20 after the first dose, and for the period 7 or more days after the second dose, hospitalization was reduced by 87%. These results were similar to those reported in a randomized trial.

Full article: [BNT162b2 mRNA Covid-19 vaccine in a nationwide mass vaccination setting](https://www.nejm.org/doi/pdf/10.1056/NEJMoa2101765?articleTools=true)

**Title:** Genomic characteristics and clinical effect of the emergent SARS-CoV-2 B.1.1.7 lineage in London, UK: a whole-genome sequencing and hospital-based cohort study

The Lancet Infectious Diseases | 12th April 2021

Emergence of variants with specific mutations in key epitopes in the spike protein of SARS-CoV-2 raises concerns pertinent to mass vaccination campaigns and use of monoclonal antibodies. The authors of this study aimed to describe the emergence of the B.1.1.7 variant of concern (VOC), including virological characteristics and clinical severity in contemporaneous patients with and without the variant.

Emerging evidence exists of increased transmissibility of B.1.1.7, and the study found increased virus load by proxy for B.1.1.7 in the data. The authors did not identify an association of the variant with severe disease in this hospitalised cohort.

Full article: [Genomic characteristics and clinical effect of the emergent SARS-CoV-2 B.1.1.7 lineage in London, UK: a whole-genome sequencing and hospital-based cohort study](https://www.thelancet.com/action/showPdf?pii=S1473-3099%2821%2900170-5)

**Title:** Changes in symptomatology, reinfection, and transmissibility associated with the SARS-CoV-2 variant B.1.1.7: an ecological study

The Lancet Public Health | 12th April 2021

The SARS-CoV-2 variant B.1.1.7 was first identified in December, 2020, in England. The authors of this study aimed to investigate whether increases in the proportion of infections with this variant are associated with differences in symptoms or disease course, reinfection rates, or transmissibility.

The lack of change in symptoms identified in this study indicates that existing testing and surveillance infrastructure do not need to change specifically for the B.1.1.7 variant. In addition, given that there was no apparent increase in the reinfection rate, vaccines are likely to remain effective against the B.1.1.7 variant.

Full article: [Changes in symptomatology, reinfection, and transmissibility associated with the SARS-CoV-2 variant B.1.1.7: an ecological study](https://www.thelancet.com/action/showPdf?pii=S2468-2667%2821%2900055-4)

**Title:** Covid-19 has redefined airborne transmission

BMJ | 2021; 373: n913 | 14th April 2021

This BMJ editorial suggests Covid-19 may well become seasonal, and we will have to live with it as we do with influenza. It states that governments and health leaders should heed the science and focus their efforts on airborne transmission.

Wearing masks, keeping your distance, and reducing indoor occupancy all impede the usual routes of transmission, whether through direct contact with surfaces or droplets, or from inhaling aerosols. One crucial difference, however, is the need for added emphasis on ventilation because the tiniest suspended particles can remain airborne for hours, and these constitute an important route of transmission.

This editorial argues that safer indoor environments are required, not only to protect unvaccinated people and those for whom vaccines fail, but also to deter vaccine resistant variants or novel airborne threats that may appear at any time. Improving indoor ventilation and air quality, particularly in healthcare, work, and educational environments, will help all of us to stay safe, now and in the future.

Full editorial: [Covid-19 has redefined airborne transmission](https://www.bmj.com/content/373/bmj.n913)

Related: [Ten scientific reasons in support of airborne transmission of SARS-CoV-2](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2821%2900869-2/fulltext) | The Lancet

**Title:** Making vaccination a condition of deployment in older adult care homes

Department of Health and Social Care | 14th April 2021

To increase vaccine take up among staff working in care homes, the government is considering amending the Health and Social Care Act 2008 (Regulated Activities) Regulations 2014. This would mean older adult care home providers could only use those staff who have received the Covid-19 vaccination (or those with a legitimate medical exemption) in line with government guidance.

The deadline for responding to the consultation is 21 May 2021.

Full detail: [Open Consultation: Making vaccination a condition of deployment in older adult care homes](https://www.gov.uk/government/consultations/making-vaccination-a-condition-of-deployment-in-older-adult-care-homes/making-vaccination-a-condition-of-deployment-in-older-adult-care-homes)

**Title:** SARS-CoV-2 infectivity by viral load, S gene variants and demographic factors and the utility of lateral flow devices to prevent transmission

medRxiv | 5th April 2021

Rapid COVID-19 tests can detect most coronavirus infections that will lead to further transmission, according to simulations incorporating the results of more than 3.5 million coronavirus tests.

Rapid coronavirus tests performed by hand-held test kits called antigen lateral-flow devices could bolster test-and-trace programmes. But such tests are less effective at detecting infections than are slower, gold-standard polymerase chain reaction (PCR) tests.

The authors of this study analysed testing and contract-tracing data collected in England from 1 September 2020 to 28 February 2021. The study included data from about one million people with positive coronavirus PCR tests and the results of PCR tests from about 2.5 million other people who had come into contact with them.

The team used data on the performance of lateral-flow devices to estimate that the most sensitive rapid tests could have detected nearly 90% of cases that led to an infected contact. The team also found that people with higher levels of SARS-CoV-2 in their bodies tended to be more infectious than people with lower levels. The findings have not yet been peer reviewed.

Full detail: [SARS-CoV-2 infectivity by viral load, S gene variants and demographic factors and the utility of lateral flow devices to prevent transmission](https://www.medrxiv.org/content/10.1101/2021.03.31.21254687v1)

**Title:** SARS-CoV-2 seropositivity and subsequent infection risk in healthy young adults: a prospective cohort study

The Lancet Respiratory Medicine | 15th April 2021

Whether young adults who are infected with SARS-CoV-2 are at risk of subsequent infection is uncertain. This cohort study investigated the risk of subsequent SARS-CoV-2 infection among young adults seropositive for a previous infection.

Seropositive young adults had about one-fifth the risk of subsequent infection compared with seronegative individuals. Although antibodies induced by initial infection are largely protective, they do not guarantee effective SARS-CoV-2 neutralisation activity or immunity against subsequent infection. These findings might be relevant for optimisation of mass vaccination strategies.

Full article: [SARS-CoV-2 seropositivity and subsequent infection risk in healthy young adults: a prospective cohort study](https://www.thelancet.com/action/showPdf?pii=S2213-2600%2821%2900158-2)

**Title:** New Variant Under Investigation (VUI) designated

Public Health England | 15th April 2021

A new variant has been designated a Variant Under Investigation (VUI) by Public Health England. The variant, first detected in India, includes a number of mutations including E484Q, L452R, and P681R.

PHE has identified 77 cases of this variant in the UK and all appropriate public health interventions will be undertaken, including enhanced contact tracing. This variant has been designated VUI-21APR-01. PHE and international partners continue to monitor the situation closely.

Full detail: [Confirmed cases of COVID-19 variants identified in UK](https://www.gov.uk/government/news/confirmed-cases-of-covid-19-variants-identified-in-uk)

**workforce wellbeing**

**Title:** NHS staff are suffering from ‘moral injury’, a distress usually associated with war zones

The Guardian | 12th April 2021

In this article, Mariam Alexander, NHS consultant liaison psychiatrist, discusses how adequate support now could head off a post-pandemic exodus of health workers who feel broken by their experiences.

Full detail: [NHS staff are suffering from ‘moral injury’, a distress usually associated with war zones](https://www.theguardian.com/commentisfree/2021/apr/12/nhs-staff-moral-injury-distress-associated-with-war-zones-pandemic)

**Title:** COVID-19 and the workforce: the long path to recovery

Royal College of Physicians | 16th April 2021

As the country edges its way back towards normality, many doctors fear the NHS will take years to recover. According to this Royal College of Physicians survey of members, the majority of doctors (59%) say it will take at least 18 months to get the NHS back on an even keel, including almost a third (30%) who say the huge backlogs in care resulting from the pandemic will take more than 2 years to clear.

The survey also reveals staff wellbeing is suffering, with over two thirds (69%) reporting feeling exhausted and 31% demoralised. Only 57% of doctors say they are getting enough sleep. Two thirds said there had still been no discussion in their organisation about time off to recuperate. Even for the 29% who had had time off, 59% still felt tired afterwards and only 27% refreshed and ready to return.

When asked what impact the pandemic had on teamwork, a third (33%) thought it had a negative impact during the first wave. Two fifths thought it then worsened during the second wave. The top reasons given for that were the pressure they were under (74% in the first wave and 82% in the second) and not enough staff (64% in the first wave and 68% in the second).

This survey had 1,142 respondents, and was conducted between 9-12 April.

Full detail: [COVID-19 and the workforce: the long path to recovery](https://www.rcplondon.ac.uk/projects/outputs/covid-19-and-workforce-long-path-recovery)

Press release: [RCP survey shows doctors fear NHS will take years to recover from pandemic](https://www.rcplondon.ac.uk/news/rcp-survey-shows-doctors-fear-nhs-will-take-years-recover-pandemic)

See also: [NHS will take at least a year and a half to recover, doctors warn](https://www.bmj.com/content/373/bmj.n999) | BMJ

**Title:** mental health of health care workers in the COVID-19 pandemic

World Health Organisation | 12th April 2021

A short film produced by the WHO Regional Office for Europe shows health care workers talking about the mental health and well-being challenges they have been facing while caring for patients during the COVID-19 pandemic.

Beyond the physical impact of the pandemic on societies worldwide, studies are warning of the negative effects on people’s mental health. The main psychological consequences to date appear to be elevated levels of stress or anxiety, loneliness, insomnia, and depression.

Further detail[: Frontline stories: mental health of health care workers in the COVID-19 pandemic](https://www.euro.who.int/en/countries/spain/news/news/2021/4/frontline-stories-mental-health-of-health-care-workers-in-the-covid-19-pandemic)

**Title:** Psychological resilience, coping behaviours, and social support among healthcare workers during the COVID‐19 pandemic

Journal of Nursing Management | 12th April 2021

A wide range of evidence has shown that healthcare workers, currently on the frontlines in the fight against COVID-19, are not spared from the psychological and mental health-related consequences of the pandemic.

The aim of this paper wasto appraise and synthesize studies examining resilience, coping behaviours, and social support among healthcare workers during the coronavirus pandemic. A total of 31 articles were included in the review.

The review found that healthcare workers utilized both problem-centred and emotion-centred coping to manage the stress-associated with the coronavirus pandemic. Coping behaviours, resilience, and social support were associated with positive mental and psychological health outcomes.

The authors conclude that substantial evidence supports the effectiveness of coping behaviours, resilience, and social support to preserve psychological and mental health among healthcare workers during the COVID-19 pandemic.

In order to safeguard the mental health of healthcare workers during the pandemic, hospital and nursing administrators should implement proactive measures to sustain resilience in HCWs, build coping skills, and implement creative ways to foster social support in healthcare workers through theory-based interventions, supportive leadership, and fostering a resilient work environment.

Full article: [Psychological resilience, coping behaviours, and social support among healthcare workers during the COVID‐19 pandemic: A systematic review of quantitative studies](https://onlinelibrary.wiley.com/doi/epdf/10.1111/jonm.13336)

**Health management**

**Title:** Visas extended for thousands of frontline health and care workers

Home Office | 9th April 2021

Thousands of crucial frontline health workers and their dependents will be granted free visa extensions, Home Secretary Priti Patel has announced. Free one-year visa extensions will be automatically granted to eligible overseas health and care workers whose visas were due to expire before 1 October 2021.

Since starting the free extensions last year, the Home Office has extended the visas of more than 10,000 people across the UK. It is expected that today’s announcement will benefit a further 14,000 applicants.

Full detail: [Visas extended for thousands of frontline health and care workers](https://www.gov.uk/government/news/visas-extended-for-thousands-of-frontline-health-and-care-workers)

**Title:** Learning from Covid-19: a case-study review

Professional Standards Authority | 15th April 2021

The Professional Standards Authority for Health and Social Care has published its Covid-19 lessons learned review to look at how the 10 UK health and social care regulators responded to the initial crisis caused by the pandemic in 2020

The independent body oversees the UK's health and social care regulators, and wanted to review how regulators reacted during the first wave of the pandemic and what lessons can be taken away. It also wanted the result to be a useful document of record that could also help inform preparation for any future crises.

All regulators responded to their request, and provided case studies. The report contains 28 case studies covering temporary registration, fitness to practise, producing new guidance, quality-assuring education.

The case studies are published in a separate report.

[Learning from Covid 19 - a case study review of the initial crisis response of professional regulators](https://www.professionalstandards.org.uk/docs/default-source/publications/thought-paper/learning-from-covid-19-a-case-study-review-of-the-initial-crisis-response-of-professional-regulators.pdf?sfvrsn=c6ad4920_6)

[Learning from Covid 19 - case studies only April 2021](https://www.professionalstandards.org.uk/docs/default-source/publications/thought-paper/learning-from-covid-19-case-studies.pdf?sfvrsn=cdad4920_6)

See also: [NMC responds to the PSA publication 'Learning from Covid-19'](https://www.nmc.org.uk/news/news-and-updates/nmc-reponds-to-the-psa-recent-covid-19-publication-learning-from-covid-19/)

**other**

**Title:** Interpreting differential health outcomes among minority ethnic groups in wave 1 and 2

Scientific Advisory Group for Emergencies | COVID-19 Ethnicity subgroup | April 2021

It is clear from ONS quantitative studies that all minority ethnic groups in the UK have been at higher risk of mortality throughout the Covid-19 pandemic (high confidence). Data on wave 2 (1st September 2020 to 31st January 2021) shows a particular intensity in this pattern of differential mortality among Bangladeshi and Pakistani groups (high confidence).

This paper draws on qualitative and sociological evidence to understand trends highlighted by the ONS data and suggests that the mortality rates in Bangladeshi and Pakistani groups are due to the amplifying interaction of I) health inequities, II) disadvantages associated with occupation and household circumstances, III) barriers to accessing health care, and IV) potential influence of policy and practice on Covid-19 healthseeking behaviour (high confidence).

Full detail: [Interpreting differential health outcomes among minority ethnic groups in wave 1 and 2](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/976030/S1168_Ethnicity_Subgroup_Wave_1_and_2_qual_comparison.pdf)

**Title:** Physical inactivity is associated with a higher risk for severe COVID-19 outcomes

British Journal of Sports Medicine | 13th April 2021

A new study from the US has been published in the British Journal of Sports Medicine. It compares hospitalisation rates, intensive care unit (ICU) admissions and mortality for patients with COVID-19 who were consistently inactive, doing some activity or consistently meeting physical activity guidelines. The authors findings indicate that consistently meeting physical activity (PA) guidelines was strongly associated with a reduced odds for severe COVID-19 among infected adults.

Full article: [Physical inactivity is associated with a higher risk for severe COVID-19 outcomes: a study in 48 440 adult patients](https://bjsm.bmj.com/content/bjsports/early/2021/04/07/bjsports-2021-104080.full.pdf)

**Title:** Suicide trends in the early months of the COVID-19 pandemic: an interrupted time-series analysis of preliminary data from 21 countries

The Lancet Psychiatry | 13th April 2021

The COVID-19 pandemic is having profound mental health consequences for many people. Concerns have been expressed that, at their most extreme, these consequences could manifest as increased suicide rates. This study aimed to assess the early effect of the COVID-19 pandemic on suicide rates around the world.

This is the first study to examine suicides occurring in the context of the COVID-19 pandemic in multiple countries. In high-income and upper-middle-income countries, suicide numbers have remained largely unchanged or declined in the early months of the pandemic compared with the expected levels based on the pre-pandemic period. We need to remain vigilant and be poised to respond if the situation changes as the longer-term mental health and economic effects of the pandemic unfold.

Full paper: [Suicide trends in the early months of the COVID-19 pandemic: an interrupted time-series analysis of preliminary data from 21 countries](https://www.thelancet.com/action/showPdf?pii=S2215-0366%2821%2900091-2)

See also: [Suicide rates were static in rich countries in first months of pandemic, study finds](https://www.bmj.com/content/373/bmj.n977)

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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