COVID-19 weekly update

20th June 2022

|  |  |  |
| --- | --- | --- |
| [Clinical management](#Clinical)[Long-term effects](#Long) | [Rates & variants](#Rates)[Infection control](#Infection)[Mental health](#mentalhealth) | [Recovery](#Recovery1)[Public health & health inequalities](#Public) |

**clinical management**

**title:** COVID-19 rapid guideline: managing COVID-19 [updated 15th June]

nice | updated 15th june 2022

This guideline covers the management of COVID-19 for children, young people and adults in all care settings. It brings together our existing recommendations on managing COVID-19, and new recommendations on therapeutics, so that healthcare staff and those planning and delivering services can find and use them more easily.

We are continually monitoring the evidence and updating the guideline as new information emerges. On 15 June 2022, we updated the recommendation on ivermectin.
<https://www.nice.org.uk/guidance/ng191>

**title:** Comorbidities and covid-19

BMJ| 15th June 2022

Better understanding is essential for health system planning

Over 530 million people worldwide are estimated to have had covid-19 by June 2022, resulting in more than 6.3 million deaths.1 Although most people have few symptoms or mild to moderate illness, a substantial minority are at higher risk of more severe disease (requiring hospital admission) and adverse outcomes, including death and long covid. This is particularly true for people with comorbidities. Our understanding of which conditions increase risk, and their relative importance to adverse outcomes is still evolving.

Initial case series, often unadjusted and with limited generalisability, provided preliminary insights. Subsequently, increasing numbers of higher quality observational studies have attempted to unpick these associations. The US Centers for Disease Control and Prevention regularly reviews all such studies to update the list of conditions associated with greater risk of severe covid-19 and death. While risks generally increase with age and are higher among men, strong evidence now shows increased risks for people with various health conditions, including chronic kidney disease, diabetes, lung and liver diseases, cardiovascular disease, obesity, immunodeficiency, certain disabilities, and mental health conditions.

Risks are highest for people with complicated diabetes, obesity, and anxiety related disorders (relative risk about 1.3 compared with people without these conditions), and less for those with cardiovascular disease (relative risk roughly 1.1).4 Evidence is more limited for other conditions such as overweight, sickle cell disease, and substance use disorders and inconsistent for asthma, hypertension, and viral hepatitis. Although the exact mechanisms by which pre-existing conditions influence disease susceptibility and severity are not known, inflammatory and hormonal pathways are postulated,5 as well as social factors such as living in crowded or institutionalised settings.6

One in five people worldwide are estimated to be at higher risk of adverse covid-19 outcomes based on the prevalence of chronic conditions.7 The risk also increases with age and with greater number of underlying conditions. Compared with someone younger than 40 years, the risk of death increases fourfold for people aged 50-64, and more than 10-fold for those aged over 85.8 Similarly, compared with people with no underlying conditions, the risk of death is 1.5 and 3.8 times higher for those with one comorbidity and over 10 comorbidities, respectively.4 These findings have been used to develop multiple risk score calculators91011 to aid clinical decisions.

Long term effects. Although most people with covid-19 recover fully, some have longer term symptoms (long covid)—usually persisting beyond 35 weeks.12 Both the definition and estimated prevalence of long covid vary widely, but one recent international systematic review of studies reported that around 43% of adults with covid-19 still have at least one symptom 28 days after infection, rising to 57% among those admitted to hospital…
<https://www.bmj.com/content/377/bmj.o1473>

**title:** Epidemiology and Outcomes of SARS-CoV-2 Infection or Multisystem Inflammatory Syndrome in Children vs Influenza Among Critically Ill Children

jama| 15rd june 2022

When assessing risks of SARS-CoV-2 and the need for public health measures for children, some cite its similarities to influenza.1-3 However, it is unclear whether pediatric critical illness differs between SARS-CoV-2 and influenza. Therefore, we used the Virtual Pediatric Systems database (VPS)4 to compare epidemiology and outcomes of patients in the pediatric intensive care unit (PICU) with SARS-CoV-2–related disease during the first 15 months of the COVID-19 pandemic vs children with critical influenza prior to the pandemic…

…Among 66 PICUs in the United States, the number of children admitted each quarter with a primary diagnosis of COVID-19 or MISC during the first 15 months of the pandemic was twice as high as that for influenza during the 2 years before the pandemic. Influenza outcomes were observed during a time with no unusual public health measures in place (2018 to early 2020), while those of SARS-CoV-2 occurred while masking, social distancing, and remote schooling occurred. Those measures were sufficient to markedly decrease critical illness from many respiratory viruses, including nearly eliminating influenza admissions to these PICUs.4 Without these measures in place for this largely unvaccinated population, SARS-CoV-2 would likely have led to a number of critically ill children several-fold higher than seen with prepandemic influenza as well as more deaths.

Our findings are supported by studies showing increased admissions,1 mortality rate,3 and absolute numbers of deaths2 among children with SARS-CoV-2 vs influenza. However, limitations include our results reflecting the original and Alpha variants and the 2018 to 2020 influenza seasons; applicability to strains of different severities (eg, Delta, Omicron, H1N1) may be limited. Pediatric vaccination and natural immunity were uncommon during the study period, so our findings can best be applied to unimmunized children. We assessed admissions per quarter because influenza seasons and COVID-19 waves have variable onsets and durations, so our data compare overall burden rather than peak seasonal activity. Public health measures5 and PICU admissions6 have been associated with negative schooling and mental health outcomes that warrant consideration but were unmeasurable in our study. Referring hospitals may have been more likely to transfer patients with SARS-CoV-2 because of their own limited capacity.

…In summary, even with pandemic-era public health measures in use, we observed more PICU admissions from SARS-CoV-2 between April 2020 and June 2021 than from influenza during the preceding 2 years. Absence of public health measures when SARS-CoV-2 variants similar to the original and Alpha strains are in circulation would likely lead to a volume of critical illness and death in unimmunized children that is markedly higher than what is typically seen with influenza.
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2793366>

**long-term effects**

**title:** Covid-19: Long covid risk is lower with omicron than delta, researchers find

BMJ| 17th june 2022

The risk of developing long covid is lower among people with the omicron variant of SARS-CoV-2 than with delta, shows an analysis of self reported data to the UK ZOE covid app.

Researchers from King’s College London looked at data logged by 56 003 adults who tested positive between 20 December 2021 and 9 March 2022, when the omicron variant was dominant. They compared these with 41 361 who tested positive between 1 June 2021 and 27 November 2021, when the delta variant was most common.

Among the cases in the omicron period, 2501 people (4.5%) reported they had experienced long covid, defined as having new or ongoing symptoms four weeks or more after they had tested positive. This compared with 4469 (10.8%) of people in the delta period, according to the analysis, published as a letter in the Lancet.

Overall the study found a reduction in odds of long covid with the omicron variant versus the delta variant of between 0.24 and 0.5, depending on age and time since vaccination. But because far more people have been infected during the omicron wave than during the delta wave, the total number with long covid will be higher. Earlier this month the Office for National Statistics estimated that the number of people experiencing long covid increased from 1.3 million in January 2022 to two million on 1 May 2022…
<https://www.bmj.com/content/377/bmj.o1500>

**title:** Risk of long COVID associated with delta versus omicron variants of SARS-CoV-2 [correspondence]

the lancet| 18th june 2022

…In this case-control observational study, we set out to identify the relative odds of long-COVID (defined following the National Institute for Health and Care Excellence guidelines as having new or ongoing symptoms 4 weeks or more after the start of acute COVID-19) in the UK during the omicron period compared with the delta period. We used self-reported data from the COVID Symptom Study app1 (King's College London Research Ethics Management Application System number 18210, reference LRS-19/20-18210). Data were extracted and pre-processed using ExeTera13 (version 0.5.5)…

…Overall, we found a reduction in odds of long COVID with the omicron variant versus the delta variant of 0·24–0·50 depending on age and time since vaccination. However, the absolute number of people experiencing long COVID at a given time depends on the shape and amplitude of the pandemic curve. For example, given the high numbers of people infected with omicron in the UK from December, 2021, to February, 2022, our data are consistent with the UK Office for National Statistics, who estimated that the numbers of people experiencing long COVID actually increased from 1·3 million in January, 2022, to 1·7 million in March, 2022.4 Considering the UK omicron peak of more than 350 000 new symptomatic COVID-19 cases per day estimated on March 26, 2022, by the ZOE app model and 4% of cases being long COVID, future numbers with long COVID will inevitably rise.
[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(22)00941-2/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2822%2900941-2/fulltext)

**title:** Post-COVID-19 condition in children: a COS is urgently needed

the lancet respiratory medicine| 14th june 2022

…Although the prevalence of post-COVID-19 condition in children and young people might be lower than in adult populations, the impact on physical and psychological health could be lifelong, not only creating increased demands on health services but also having wider socioeconomic implications for the affected children and society—eg, by adversely affecting career opportunities and earnings, productivity, and economics, as well as social activities, relationships, and longevity. There is an urgent need to initiate projects that aim to develop a COS and associated measurement and data harmonisation tools for research on post-COVID-19 condition in children and young people—with involvement of these groups in the consensus process—to help to improve the long-term outcomes of COVID-19 across all age ranges.
[https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(22)00211-9/fulltext](https://www.thelancet.com/journals/lanres/article/PIIS2213-2600%2822%2900211-9/fulltext)

**title:** A core outcome set for post-COVID-19 condition in adults for use in clinical practice and research: an international Delphi consensus study

the lancet respiratory medicine| 14th june 2022

Health consequences that persist beyond the acute infection phase of COVID-19, termed post-COVID-19 condition (also commonly known as long COVID), vary widely and represent a growing global health challenge. Research on post-COVID-19 condition is expanding but, at present, no agreement exists on the health outcomes that should be measured in people living with the condition. To address this gap, we conducted an international consensus study, which included a comprehensive literature review and classification of outcomes for post-COVID-19 condition that informed a two-round online modified Delphi process followed by an online consensus meeting to finalise the core outcome set (COS). 1535 participants from 71 countries were involved, with 1148 individuals participating in both Delphi rounds. Eleven outcomes achieved consensus for inclusion in the final COS: fatigue; pain; post-exertion symptoms; work or occupational and study changes; survival; and functioning, symptoms, and conditions for each of cardiovascular, respiratory, nervous system, cognitive, mental health, and physical outcomes. Recovery was included a priori because it was a relevant outcome that was part of a previously published COS on COVID-19. The next step in this COS development exercise will be to establish the instruments that are most appropriate to measure these core outcomes. This international consensus-based COS should provide a framework for standardised assessment of adults with post-COVID-19 condition, aimed at facilitating clinical care and research worldwide.
[https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(22)00169-2/fulltext](https://www.thelancet.com/journals/lanres/article/PIIS2213-2600%2822%2900169-2/fulltext)

**title:** The COVID-19 continuum of illness

the lancet respiratory medicine| 15th june 2022

On Oct 6, 2021, WHO recognised the need to codify the post-COVID-19 condition and formalised the cataloguing of diverse symptoms and multisystem sequelae after COVID-19. Symptoms of post-COVID-19 condition include fatigue, shortness of breath, cognitive dysfunction, and symptoms interfering with daily functioning. These symptoms can remit or relapse over time, but persist for at least 2 months and occur 3 months after the initial COVID-19 illness.1

This seminal cataloguing of symptoms has been supplanted by the urgency to develop a core outcome set (COS) to ensure uniform capture of critically important symptoms for post-COVID-19 clinical research studies…
[https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(22)00219-3/fulltext](https://www.thelancet.com/journals/lanres/article/PIIS2213-2600%2822%2900219-3/fulltext)

**rates & variants**

**title:** Covid-19: Omicron sub variants driving new wave of infections in UK

BMJ| 20th june 2022

The SARS-CoV-2 omicron variant (B.1.1.529) is less sensitive to neutralising antibody responses
The UK now appears to be at the start of a new wave of covid infections driven by the rise of two omicron subvariants—BA.4 and BA.5. Cases and hospital admissions with covid are now rising sharply, official figures show. The latest data from the Office for National Statistics (ONS), released on 17 June, show that covid infections are up 43% week on week. The covid-19 infection survey for the week ending 11 June shows that an estimated 1 in 50 people in England would test positive for covid, up from 1 in 70 the week before. In Scotland the figure is now 1 in 30 people and in Northern Ireland and Wales, 1 in 45 people.

The percentage of people testing positive increased in all English regions except the north east, where the trend was uncertain. The percentage of people testing positive increased in all age groups…
<https://www.bmj.com/content/377/bmj.o1506>

**title:** Covid-19: Omicron infection is poor booster to immunity, study finds

BMJ| 15th june 2022

People infected with the omicron variant show poor immunity boosting against future covid-19 infection, researchers have found. This may explain why breakthrough and repeat infections have been a common feature of the omicron wave of the pandemic, even among people who have been triple vaccinated, said the research team. Omicron is “an especially stealthy immune evader” said Danny Altmann, study coauthor from Imperial College London. “Not only can it break through vaccine defences, it looks to leave very few of the hallmarks we’d expect on the immune system,” he said. “It’s more stealthy than previous variants and flies under the radar, so the immune system is unable to remember it.”

The research team analysed blood samples from 731 UK healthcare workers who received three doses of mRNA vaccine and had different SARS-CoV-2 infection histories, to investigate antibody, T cell, and B cell immunity against omicron.

The study, published in Science,1 found that people with no prior SARS-CoV-2 infection who then had omicron showed enhanced cross reactive immunity to previous variants—with enhanced B and T cell immunity against the alpha, beta, gamma, and delta variants—but they showed reduced boosting against the omicron spike protein itself…
<https://www.bmj.com/content/377/bmj.o1474>

**infection control**

**title:** Association of Omicron vs Wild-type SARS-CoV-2 Variants With Hospital-Onset SARS-CoV-2 Infections in a US Regional Hospital System

JAMA| 15th june 2022

The SARS-CoV-2 Omicron variant is more contagious than prior variants, leading to large increases in community cases. Little is known, however, about the incidence of nosocomial SARS-CoV-2 infections with Omicron vs prior variants.

Methods. We retrospectively identified all SARS-CoV-2 cases diagnosed in 12 hospitals within the Mass General Brigham health care system between July 1, 2020, and February 28, 2022. All patients were tested on admission with polymerase chain reaction (PCR) assays, and, starting November 2020, were retested 72 hours after admission to identify cases with virus incubating on admission. Retesting was also required for new symptoms, after possible exposures, before aerosol-generating procedures, and before discharge if requested by destination facilities…

…The Omicron surge was associated with a significant increase in hospital-onset SARS-CoV-2 infections compared with the prior winter surge. Possible reasons include the Omicron surge’s very high community and health care worker incidence rates, as well as Omicron’s greater contagiousness. Sources of nosocomial infections include health care workers, visitors, and other patients.

Study limitations include possible underdetection of hospital-acquired cases owing to lack of serial testing, failure to test patients with asymptomatic or paucisymptomatic infections, or disease onset after discharge. Time since admission is a limited proxy for nosocomial infection. Some hospital-acquired cases may be misidentified as community acquired because the incubation period for SARS-CoV-2 can be fewer than 5 days, particularly for Omicron. Conversely, some community-acquired cases might only have been identified more than 5 days after admission because of a long incubation period or delayed testing. Findings may not be generalizable to hospitals with fewer baseline infection control measures (eg, vaccination requirements, testing all patients on admission and 72 hours after admission).

The increase in hospital-onset infections associated with the Omicron variant despite consistent infection control policies and mandated employee vaccinations underscores the risk of nosocomial transmission, especially when community incidence rates are high, and the need for enhanced infection control strategies.
<https://jamanetwork.com/journals/jama/fullarticle/2793582>

**title:** Covid-19: CDC and FDA approve Pfizer and Moderna vaccines for under 5s

BMJ| 20th june 2022

The US Centers for Disease Control and Prevention and the Food and Drug Administration have approved both the Pfizer-BioNTech and Moderna covid-19 vaccines for children aged 6 months to 5 years.1 This is the final group eligible for vaccination in the US.

CDC director Rochelle Walensky gave approval on 18 June, following previous approval by advisory committees and the FDA. She recommended vaccination for about 20 million children in this age group with whichever vaccine is available…
<https://www.bmj.com/content/377/bmj.o1507>

**title:** The covid waves continue to come

BMJ| 17th june 2022

Omicron continues to drive waves of covid infections, writes Christina Pagel, but let’s not give up trying to control transmission

We are just over five months into 2022 and have already seen two record highs of coronavirus infection in England, with population prevalence peaking at 7% in early January (omicron BA.1) and 8% in late March (omicron BA.2).1 After eight weeks of declining prevalence, infections have started to increase again with the rise of yet another set of omicron variants. Instead of just one new variant, we currently have four: BA.2.12.1 (dominant in the US), BA.4 and BA.5 (dominant in South Africa), and BA.5.1 (dominant in Portugal). Together, these four variants became dominant in England in early June,2 and it looks as if BA.5 and BA.5.1 will likely win out to become the overall dominant variants.3 So what does this mean for the shorter and longer term?
<https://www.bmj.com/content/377/bmj.o1504>

**title:** ACCURACY OF RAPID ANTIGEN VS REVERSE TRANSCRIPTASE–POLYMERASE CHAIN REACTION TESTING FOR SARS-COV-2 INFECTION IN COLLEGE ATHLETES DURING PREVALENCE OF THE OMICRON VARIANT

JAMa| 15th june 2022

One critical aspect of COVID-19 management has been to isolate or quarantine individuals to prevent viral spread. Reverse transcriptase–polymerase chain reaction (RT-PCR) tests are the criterion standard for diagnosis of SARS-CoV-2 infection but are limited by long turnaround times and complex laboratory methods. Rapid antigen tests (RATs) can be performed and interpreted in minutes without the use of special equipment. With the rise of each new variant, the accuracy of RATs must be reevaluated. This case series evaluated the performance of RATs in detecting SARS-CoV-2 in the context of a dominant Omicron variant…

…Rapid antigen testing performed similarly in the detection of the Omicron variant compared with previous variants, with high specificity but poor sensitivity, particularly among asymptomatic individuals. Its use as a screening tool for asymptomatic infection in the setting of widespread prevalence of the Omicron variant may be limited.
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2793365>

**title:** Urine Test Detects SARS-CoV-2 Antibodies

jAMA| 14th june 2022

An experimental test detects SARS-CoV-2 antibodies in urine, researchers recently reported in a preliminary study in Science Advances. If further validated, the new test could be a safe, noninvasive tool to identify resolving or prior infections.

The analysis involved 209 urine samples paired with 187 serum samples simultaneously collected from 139 patients with SARS-CoV-2 infection confirmed by polymerase chain reaction testing. Negative controls included 30 samples collected before the COVID-19 pandemic or from patients without symptoms.

The urine-based enzyme-linked immunosorbent assay (ELISA) test demonstrated 94% sensitivity and 100% specificity for detecting the SARS-CoV-2 nucleocapsid protein in patient samples, with a positive predictive value of 1.0 and a negative predictive value of 0.79. In comparison, a previously validated serum-based ELISA test demonstrated 88% sensitivity and 100% specificity, with a positive predictive value of 1.0 and a negative predictive value of 0.70…
<https://jamanetwork.com/journals/jama/fullarticle/2793275>

**title:** Analysis of Thromboembolic and Thrombocytopenic Events After the AZD1222, BNT162b2, and MRNA-1273 COVID-19 Vaccines in 3 Nordic Countries

JAMA| 14th june 2022

Question Are COVID-19 vaccines associated with increased risk of thromboembolic and thrombocytopenic events?

Findings In this self-controlled case series, AZD1222 was associated with increased rates of cerebral venous thrombosis and thrombocytopenia in 3 Nordic countries. No consistent associations were observed between the mRNA COVID-19 vaccines and coronary artery disease, coagulation disorders and cerebrovascular disease.

Meaning The findings of this study suggest that AZD1222 vaccination is associated with cerebral venous thrombosis and thrombocytopenia.
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2793348>

**title:** Immunogenicity and reactogenicity of an inactivated SARS-CoV-2 vaccine (BBV152) in children aged 2–18 years: interim data from an open-label, non-randomised, age de-escalation phase 2/3 study

the lancet infectious diseases| 16th june2022

Despite having milder symptoms than adults, children are still susceptible to and can transmit SARS-CoV-2. Vaccination across all age groups is therefore necessary to curtail the pandemic. Among the available COVID-19 vaccine platforms, an inactivated vaccine platform has the advantage of excellent safety profile across all age groups; hence, we conducted an age de-escalation study to assess the safety, reactogenicity, and immunogenicity of an inactivated COVID-19 vaccine, BBV152 (COVAXIN; Bharat Biotech International, Hyderabad, India), in children aged 2–18 years…

…In conclusion, the inactivated SARS-CoV-2 vaccine BBV152, was well tolerated and immunogenic in children aged 2–18 years, with neutralising antibody responses at least similar to those observed in adults in whom the vaccine has been proven to be efficacious against symptomatic and asymptomatic COVID-19. This, combined with their ability to be stored stably at warmer (fridge) temperatures than the mRNA29, 30 and vector-based vaccines that have been widely used in high-income countries, make BBV152 an attractive alternative to those vaccines for wider global use. The vaccine has been approved for use by the Indian government in children aged 15–18 years.31 We await further safety data from the large surveillance study in children aged 2 years and older.
[https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(22)00307-3/fulltext](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099%2822%2900307-3/fulltext)

**title:** Neutralization of the SARS-CoV-2 Omicron BA.4/5 and BA.2.12.1 Subvariants

new england journal of medicine| 15th june 2022

Emerging subvariants of the B.1.1.529 (omicron) variant of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) have reignited concern about further immune escape. Specifically, BA.2.12.1, which is on the rise in the United States, has two more mutations (L452Q and S704L) than BA.2 (Fig. S1A in the Supplementary Appendix, available with the full text of this letter at NEJM.org).1 In addition, BA.4 and BA.5 (hereafter, BA.4/5), which bear identical spike proteins, have become the dominant strains in South Africa.2 Here, we examine neutralizing-antibody titers in serum samples obtained from vaccinated persons who had received a single booster dose of the same vaccine used in the two-dose series and who had been previously infected with SARS-CoV-2…
<https://www.nejm.org/doi/full/10.1056/NEJMc2206725>

**title:** Association between Covid-19 Vaccination and Influenza Vaccination Rates

NEW ENGLAND JOURNAL OF MEDICINE| 15th june 2022

…Although inferences about specific policies and messaging promoting Covid-19 vaccination are beyond the scope of this ecologic study, our findings suggest that after the widespread availability of Covid-19 vaccines, factors associated with Covid-19 vaccination rates (e.g., safety concerns and mistrust of Covid-19 vaccines or government5) may have spilled over to affect influenza vaccination rates.
<https://www.nejm.org/doi/full/10.1056/NEJMc2204560>

**title:** Effects of Previous Infection and Vaccination on Symptomatic Omicron Infections

new england journal of medicine| 15th june 2022

The protection conferred by natural immunity, vaccination, and both against symptomatic severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection with the BA.1 or BA.2 sublineages of the omicron (B.1.1.529) variant is unclear.

METHODS. We conducted a national, matched, test-negative, case–control study in Qatar from December 23, 2021, through February 21, 2022, to evaluate the effectiveness of vaccination with BNT162b2 (Pfizer–BioNTech) or mRNA-1273 (Moderna), natural immunity due to previous infection with variants other than omicron, and hybrid immunity (previous infection and vaccination) against symptomatic omicron infection and against severe, critical, or fatal coronavirus disease 2019 (Covid-19).

RESULTS. The effectiveness of previous infection alone against symptomatic BA.2 infection was 46.1% (95% confidence interval [CI], 39.5 to 51.9). The effectiveness of vaccination with two doses of BNT162b2 and no previous infection was negligible (−1.1%; 95% CI, −7.1 to 4.6), but nearly all persons had received their second dose more than 6 months earlier. The effectiveness of three doses of BNT162b2 and no previous infection was 52.2% (95% CI, 48.1 to 55.9). The effectiveness of previous infection and two doses of BNT162b2 was 55.1% (95% CI, 50.9 to 58.9), and the effectiveness of previous infection and three doses of BNT162b2 was 77.3% (95% CI, 72.4 to 81.4). Previous infection alone, BNT162b2 vaccination alone, and hybrid immunity all showed strong effectiveness (>70%) against severe, critical, or fatal Covid-19 due to BA.2 infection. Similar results were observed in analyses of effectiveness against BA.1 infection and of vaccination with mRNA-1273.

CONCLUSIONS. No discernable differences in protection against symptomatic BA.1 and BA.2 infection were seen with previous infection, vaccination, and hybrid immunity. Vaccination enhanced protection among persons who had had a previous infection. Hybrid immunity resulting from previous infection and recent booster vaccination conferred the strongest protection.
<https://www.nejm.org/doi/full/10.1056/NEJMoa2203965>

**mental health**

**title:** WHO: Pandemic Sparked a Push for Global Mental Health Transformation

JAMA |17th june 2022

WHO’s ‘World Mental Health Report: Transforming Mental Health for All’ leverages … stories to build a case for transforming global mental health care delivery to create seamless human rights– and community-based prevention and mental health care systems. The report aims to capitalize on the growing recognition of mental health’s importance amid a global pandemic, which disrupted care. During COVID-19’s first year, the prevalence of anxiety and depression rose by about 25%, the report notes.

“Interest in mental health is higher than it has ever been because of COVID-19,” Mark van Ommeren, PhD, head of the mental health unit in the WHO's Department of Mental Health and Substance Use in Geneva, Switzerland, said in an interview…
<https://jamanetwork.com/journals/jama/fullarticle/2793692>

**title:** Pathways to depressive and anxiety disorders during and after the COVID-19 pandemic

the lancet global psychiatry |july 2022

The Global Burden of Disease (GBD) data for 2020 from 204 countries indicates that the COVID-19 pandemic and associated lockdowns increased the prevalence of anxiety and depressive disorders worldwide.1 Two key factors behind these increases were identified: infection rate and immobility. Here we present a conceptual model that provides insight into the processes that underlie how these factors operate and can help to predict the long-term effects of the factors. The effect of infection rate and immobility on depressive and anxiety disorders is shown in the figure. (In the GBD study,1 infection rate was used as a proxy factor for the psychological effects [eg, fear of infection] of the pandemic and the physiological effects [eg, nervous system impairment2] of COVID-19.) The findings of the GBD study suggest that lockdowns, by decreasing the number of infections, can indirectly help to reduce the prevalence of anxiety disorders and depressive disorders.
[https://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366(22)00152-3/fulltext](https://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366%2822%2900152-3/fulltext)

**recovery**

**title:** The Government’s Response To The Health And Social Care Committee And Science And Technology Committee Joint Report: Coronavirus: Lessons Learned To Date

DHSC| 17th june 2022

The parliamentary watchdog on public spending has accused the Department of Health and Social
This document sets out the government’s response to the recommendations made by the House of Commons Health and Social Care Committee and Science and Technology Committee joint report Coronavirus: lessons learned to date, which was published in October 2021. The joint inquiry investigated six main themes: the country’s preparedness for a pandemic; the use of non-pharmaceutical interventions such as border controls, social distancing and lockdowns to control the pandemic; the use of test, trace and isolate strategies; the impact of the pandemic on social care; the impact of the pandemic on specific communities; and the procurement and roll-out of Covid-19 vaccines.
<https://kingsfund.blogs.com/health_management/2022/06/the-governments-response-to-the-health-and-social-care-committee-and-science-and-technology-committe.html>

**title:** Memorialising COVID-19

the lancet | 18th june 2022

…Perhaps because the millions of deaths from COVID-19 have been diffused so widely, often in isolation—and of course still happening—the memorials that are starting to crop up are very human in scale. In the main plaza of Buenos Aires, Argentines have been piling up small stones with names of those who died, an echo of the Jewish ritual of placing stones of remembrance on a gravesite. In London, a wall of hand-painted hearts and names appeared on the Albert Embankment along the River Thames. The residents of Bergamo—one of the Italian regions hit earliest and hardest by COVID-19—are simply planting trees…
[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(22)01067-4/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2822%2901067-4/fulltext)

**title:** Early-phase clinical trials in a pandemic: learning from the response to COVID-19

the lancet respiratory medicine| 13th june 2022

The first cases of the novel SARS-CoV-2 virus emerged at the end of 2019 in Wuhan, China. Within 2 months, WHO had declared a public health emergency and the first cases were detected in the UK. The rapid spread of SARS-CoV-2 caused widespread disruption across society and health care, and left little time to plan and design research needed in the context of a new pandemic. Some studies (eg, ISARIC and REMAP-CAP) had pre-existing protocols that were rapidly adjusted, but in most instances, new research studies and clinical trials had to be set up rapidly to respond to the unique environment and challenges created by COVID-19. The success or otherwise of the adaptations made as part of this research response has been highly informative and provides an opportunity to plan effectively for future threats…
[https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(22)00062-5/fulltext](https://www.thelancet.com/journals/lanres/article/PIIS2213-2600%2822%2900062-5/fulltext)

**title:** Use of pragmatic and explanatory trial designs in acute care research: lessons from COVID-19

the lancet respiratory medicine| 13th june 2022

Unique challenges arise when conducting trials to evaluate therapies already in common clinical use, including difficulty enrolling patients owing to widespread open-label use of trial therapies and the need for large sample sizes to detect small but clinically meaningful treatment effects. Despite numerous successes in trials evaluating novel interventions such as vaccines, traditional explanatory trials have struggled to provide definitive answers to time-sensitive questions for acutely ill patients with COVID-19. Pragmatic trials, which can increase efficiency by allowing some or all trial procedures to be embedded into clinical care, are increasingly proposed as a means to evaluate therapies that are in common clinical use. In this Personal View, we use two concurrently conducted COVID-19 trials of hydroxychloroquine (the US ORCHID trial and the UK RECOVERY trial) to contrast the effects of explanatory and pragmatic trial designs on trial conduct, trial results, and the care of patients managed outside of clinical trials. In view of the potential advantages and disadvantages of explanatory and pragmatic trial designs, we make recommendations for their optimal use in the evaluation of therapies in the acute care setting.
[https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(22)00044-3/fulltext](https://www.thelancet.com/journals/lanres/article/PIIS2213-2600%2822%2900044-3/fulltext)

**public health & health inequalities**

**title:** The Unequal Impact Of Covid-19: Investigating The Effect On People With Certain Protected Characteristics

NHS CONFEDERATION | 16th june 2022

This report maps existing research into Covid-19 inequalities onto some of these protected characteristics, showing how the pandemic has interacted with them. It also showcases four case studies of how different health and care systems have put in place interventions to respond to these inequalities when designing their Covid-19 response. It focuses on a number of key areas including the impact of Covid-19 on: BAME communities; people with disabilities; and older and younger people.
<https://kingsfund.blogs.com/health_management/2022/06/the-unequal-impact-of-covid-19-investigating-the-effect-on-people-with-certain-protected-characteris.html>

**title:** PUBLIC ATTITUDES TOWARDS INSTITUTIONS INVOLVED IN TACKLING THE COVID-19 PANDEMIC

THE POLICY INSTITUTE AT KING'S COLLEGE LONDON | 10TH JUNE 2022

According to this international study of six countries three in four (74 per cent) people in the UK think the government is motivated by building or protecting its own reputation when it comes to Covid-19, while six in ten (61 per cent) believe it is motivated by making lots of money in relation to the pandemic. However, majorities in other nations share the same perceptions. These perceptions also extend, although to a lesser extent, to scientists involved in tackling coronavirus.
<https://kingsfund.blogs.com/health_management/2022/06/public-attitudes-towards-institutions-involved-in-tackling-the-covid-19-pandemic.html>

**title:** Association of COVID-19 Stay-at-Home Orders With 1-Year Weight Changes

JAMA | 16th june 2022

Efforts to slow the transmission of COVID-19 through stay-at-home mandates and shutdown of public places may have led to weight gain and increased rates of obesity. A recent survey1 found that 60% of adults reported gaining a mean of 5.6 kg in bodyweight, whereas a meta-analysis2 suggested smaller weight gains, at 1.57 kg. Such inconsistent findings may be owing to small samples, self-report, and/or cross-sectional designs. We sought to examine changes in weight and body mass index (BMI; calculated as weight in kilograms divided by height in meters squared) associated with the COVID-19 shutdown using objective weight measures from electronic medical records (EMR) in a large sample of more than 100 000 adults and a within-individual design comparing changes during the year after the COVID-19 shutdown relative to a control period prior to COVID-19…
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2793485>

**title:** Effect of Text Messaging and Behavioral Interventions on COVID-19 Vaccination Uptake: A Randomized Clinical Trial

JAMA | 13th june 2022

Question Can text messaging with behavioral insights increase participation in COVID-19 vaccine outreach?

Findings In this randomized clinical trial comprising 16 045 participants, text messaging did not result in a higher response rate than outbound telephone calls. Behaviorally informed messaging did not result in a significantly higher response than usual content.

Meaning Text messaging offers a low-cost alternative to outbound telephone calls, but additional efforts are needed to increase vaccine uptake.
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2793295>

**title:** Effect of Electronic and Mail Outreach From Primary Care Physicians for COVID-19 Vaccination of Black and Latino Older Adults:

JAMA |17th june 2022

Question How effective are electronic secure messages and mailings from primary care physicians (PCPs) for COVID-19 vaccination among Black and Latino older adults?

Findings This randomized clinical trial among 8287 Black and Latino adults aged 65 years and older found that both standard and culturally tailored electronic secure messages and mailings from individuals’ own PCPs led to significantly higher COVID-19 vaccination rates at 8 weeks than usual care. There was no difference in vaccination rates between standard and culturally tailored PCP outreach.

Meaning These findings suggest that electronic and mail outreach from PCPs increased COVID-19 vaccination rates among Black and Latino older adults. More intensive strategies are also warranted.
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2793497>

**title:** Effectiveness of a COVID-19 Testing Outreach Intervention for Latinx Communities: A Cluster Randomized Trial

jama |16th june 2022

Question Can a culturally informed community-based outreach intervention increase Latinx participation at SARS-CoV-2 testing events?

Findings In this cluster randomized trial of 33 SARS-CoV-2 testing sites, the community health promoters intervention was associated with 3.84 times more Latinx individuals tested per event than control sites, and the intervention was associated with testing a greater proportion of the Latinx populace per event.

Meaning The reduction of health disparities experienced by individuals identifying as Latinx during the COVID-19 pandemic may be supported by culturally informed outreach strategies.
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2793483>

We

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

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

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