COVID-19 weekly update

18th July 2022

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**clinical management**

**title:** Update to living WHO guideline on drugs for covid-19

BMJ | 13th JULY 2022  
  
This living guideline by Agarwal and colleagues (BMJ 2020;370:m3379) has been updated. For the latest update, visit doi:10.1136/bmj.m3379. The latest version of this WHO living guidance provides two new recommendations for patients with non-severe covid-19: (a) a recommendation against the use of fluvoxamine except in the context of a clinical trial; (b) a strong recommendation against the use of colchicine. No recommendation was made for either drug in patients with severe or critical illness, given limited or no data.   
<https://www.bmj.com/content/378/bmj.o1713.full>

**title:** Update to living systematic review on drug treatments for covid-19

bmJ| 13th july 2022  
  
This living systematic review by Siemieniuk and colleagues (BMJ 2020;370:m2980) has been updated. For the latest update, visit doi:10.1136/bmj.m2980. In this update, 463 trials enrolling 166 581 patients were included; 267 (57.7%) trials and 89 814 (53.9%) patients are new from the previous iteration. Compared with standard care, three drugs reduced mortality in patients with mostly severe disease with at least moderate certainty: systemic corticosteroids, interleukin-6 receptor antagonists when given with corticosteroids, and Janus kinase inhibitors. Compared with standard care, two drugs probably reduce hospital admission in patients with non-severe disease: nirmatrelvir/ritonavir and molnupiravir. Remdesivir may reduce hospital admission. Only molnupiravir had at least moderate quality evidence of a reduction in time to symptom resolution; several others showed a possible benefit. Several drugs may increase the risk of adverse effects leading to drug discontinuation; hydroxychloroquine probably increases the risk of mechanical ventilation (moderate certainty).  
<https://www.bmj.com/content/378/bmj.o1717>

**title:** HDL cholesterol levels and susceptibility to COVID-19

the lancet ebio medicine|14th july 2022  
  
Host cell-membrane cholesterol, an important player in viral infections, is in constant interaction with serum high-density lipoprotein-cholesterol (HDL-C) and low-density lipoprotein-cholesterol (LDL-C). Low serum lipid levels during hospital admission are associated with COVID-19 severity. However, the effect of antecedent serum lipid levels on SARS-CoV-2 infection risk has not been explored…  
  
…Among the 11001 individuals with a median age of 59 years (IQR 46-70), 1340 (12.2%) tested positive for COVID-19. The highest trajectory for antecedent serum HDL-C was associated with the lowest SARS-CoV-2 infection risk (RR 0.63, 95%CI 0.46-0.86).  
  
…Higher antecedent serum HDL-C, but not LDL-C, TC, or TG, levels were associated with a lower SARS-CoV-2 infection risk. Serum HDL-C, and LDL-C levels declined transiently at the time of infection. Further studies are needed to determine the potential role of lipid-modulating therapies in the prevention and management of COVID-19.  
<https://www.thelancet.com/journals/ebiom/article/PIIS2352-3964(22)00347-4/fulltext#:~:text=Among%20the%2011001%20individuals%20with,%25CI%200.46%2D0.86)>.

**title:** Paxlovid in patients who are immunocompromised and hospitalised with SARS-CoV-2 infection  
  
the lancet infectious diseases| 14th july 2022  
  
…In summary, this real-life study in Chinese patients with SARS-CoV-2 infection called for action to implement early treatment of paxlovid for high-risk patients who are immunocompromised, including those who are hospitalised, and unvaccinated in particular, in order to facilitate viral eradication.  
<https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(22)00430-3/fulltext>

**title:** Effectiveness of Casirivimab-Imdevimab and Sotrovimab During a SARS-CoV-2 Delta Variant Surge: A Cohort Study and Randomized Comparative Effectiveness Trial

JAMA | 14th july 2022  
  
Question Is monoclonal antibody (mAb) treatment effective in nonhospitalized patients with COVID-19 caused by the Delta variant?

Findings In this propensity score–matched cohort study (n = 3069) and randomized comparative effectiveness trial (n = 3558), mAb treatment (casirivimab-imdevimab or sotrovimab) compared with no mAb treatment was associated with reduced hospitalization or death by 28 days, and sotrovimab compared with casirivimab-imdevimab resulted in 86% probability of inferiority and 79% probability of equivalence in the odds of improvement in hospital-free days within 28 days after mAb treatment.

Meaning Findings of this study suggest that casirivimab-imdevimab and sotrovimab were both associated with reduced risk of hospitalization or death and had similar effectiveness, although they did not meet the prespecified criteria for statistical inferiority or equivalence.  
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2794210#:~:text=Compared%20with%20patients%20who%20received,and%2079%25%20probability%20of%20equivalence>.

**title:** Pre-clinical evaluation of antiviral activity of nitazoxanide against SARS-CoV-2

the lancet ebio medicine|10th july 2022  
  
…These preclinical results suggest, if directly applicable to humans, that the standard formulation and dosage of nitazoxanide is not effective in providing antiviral therapy for Covid-19.  
<https://www.thelancet.com/journals/ebiom/article/PIIS2352-3964(22)00329-2/fulltext>

**title:** Development of a multiomics model for identification of predictive biomarkers for COVID-19 severity: a retrospective cohort study

the lancet digital health| 11th JULY 2022  
  
COVID-19 is a multi-system disorder with high variability in clinical outcomes among patients who are admitted to hospital. Although some cytokines such as interleukin (IL)-6 are believed to be associated with severity, there are no early biomarkers that can reliably predict patients who are more likely to have adverse outcomes. Thus, it is crucial to discover predictive markers of serious complications.

Methods. In this retrospective cohort study, we analysed samples from 455 participants with COVID-19 who had had a positive SARS-CoV-2 RT-PCR result between April 14, 2020, and Dec 1, 2020 and who had visited one of three Mayo Clinic sites in the USA (Minnesota, Arizona, or Florida) in the same period. These participants were assigned to three subgroups depending on disease severity as defined by the WHO ordinal scale of clinical improvement (outpatient, severe, or critical). Our control cohort comprised of 182 anonymised age-matched and sex-matched plasma samples that were available from the Mayo Clinic Biorepository and banked before the COVID-19 pandemic. We did a deep profiling of circulatory cytokines and other proteins, lipids, and metabolites from both cohorts. Most patient samples were collected before, or around the time of, hospital admission, representing ideal samples for predictive biomarker discovery. We used proximity extension assays to quantify cytokines and circulatory proteins and tandem mass spectrometry to measure lipids and metabolites. Biomarker discovery was done by applying an AutoGluon-tabular classifier to a multiomics dataset, producing a stacked ensemble of cutting-edge machine learning algorithms. Global proteomics and glycoproteomics on a subset of patient samples with matched pre-COVID-19 plasma samples was also done…  
  
…A multiomic molecular signature in the plasma of patients with COVID-19 before being admitted to hospital can be exploited to predict a more severe course of disease. Machine learning approaches can be applied to highly complex and multidimensional profiling data to reveal novel signatures of clinical use. The absence of validation in an independent cohort remains a major limitation of the study.  
<https://www.thelancet.com/journals/landig/article/PIIS2589-7500(22)00112-1/fulltext>

**title:** Clinical prediction models for mortality in patients with covid-19: external validation and individual participant data meta-analysis

BMJ| 12th JULY 2022  
  
Objective: To externally validate various prognostic models and scoring rules for predicting short term mortality in patients admitted to hospital for covid-19. Design: Two stage individual participant data meta-analysis. Setting: Secondary and tertiary care. Participants 46 914 patients across 18 countries, admitted to a hospital with polymerase chain reaction confirmed covid-19 from November 2019 to April 2021.   
  
Data sources Multiple (clustered) cohorts in Brazil, Belgium, China, Czech Republic, Egypt, France, Iran, Israel, Italy, Mexico, Netherlands, Portugal, Russia, Saudi Arabia, Spain, Sweden, United Kingdom, and United States previously identified by a living systematic review of covid-19 prediction models published in The BMJ, and through PROSPERO, reference checking, and expert knowledge.

Model selection and eligibility criteria Prognostic models identified by the living systematic review and through contacting experts. A priori models were excluded that had a high risk of bias in the participant domain of PROBAST (prediction model study risk of bias assessment tool) or for which the applicability was deemed poor. Methods Eight prognostic models with diverse predictors were identified and validated. A two stage individual participant data meta-analysis was performed of the estimated model concordance (C) statistic, calibration slope, calibration-in-the-large, and observed to expected ratio (O:E) across the included clusters.

Main outcome measures 30 day mortality or in-hospital mortality…

…Conclusion The prognostic value of the included models varied greatly between the data sources. Although the Knight 4C Mortality Score and Wang clinical model appeared most promising, recalibration (intercept and slope updates) is needed before implementation in routine care.  
<https://www.bmj.com/content/378/bmj-2021-069881>

**long term effects**

**title:** Long covid patients travel abroad for expensive and experimental “blood washing”

BMJ| 12th july 2022  
  
Patients with long covid are travelling to private clinics in Cyprus, Germany, and Switzerland for blood filtering apheresis and anticoagulation drugs. Experts question whether these invasive treatments should be offered without sufficient evidence…  
<https://www.bmj.com/content/378/bmj.o1671>   
Linked editorial: [Long covid and apheresis: a miracle cure sold on a hypothesis of hope](https://www.bmj.com/content/378/bmj.o1733)

**title:** Once you believe something exists you can listen to patients and fund researcH

BMJ |14th july 2022  
  
Although understandable, it is a pity that it often takes a family member being affected by any neglected disease or condition to prompt a belief (in a doctor, researcher, politician, and so on) that the condition genuinely exists.1 If you don’t believe, you don’t investigate; if you don’t investigate, you never discover.

The recognition of myalgic encephalomyelitis and now long covid has arisen partly because of the number of people affected but also because among this large group are some health professionals and their relatives. It is probably difficult to tell a fellow doctor that it is “all in your head,” which is what tends to happen to those who have continuing symptoms after treatment for Lyme disease.

Until a 2021 paper from the Netherlands,2 studies following up patients with Lyme disease were in the habit of saying that symptoms were just as prevalent in the healthy population. It has taken a large study by researchers who were prompted to ask the right questions to agree that there is more to discover about Lyme disease.

Oliver Sachs said that the standard acronym used to report on a neurological examination—WNL, Within Normal Limits—should stand for We Never Looked. Once you believe something exists, you can then listen to patients with an open mind. And look. And fund research.  
<https://www.bmj.com/content/378/bmj.o1692.full>

**title:** Recovering from COVID ARDS and post-intensive care syndrome

the lancet respiratory medicine |15th july 2022  
  
…[This single] case highlights the challenges of PICS, a constellation of symptoms of physical, cognitive, and psychosocial dysfunction, which can develop after an ICU stay. Many patients and families are unaware of the diagnosis of PICS and struggle to understand why survivors face so many difficulties after critical illness. Providers also might be unaware of the need to screen for PICS symptoms and refer patients for treatment, leaving patients to suffer from lasting problems without the benefit of targeted rehabilitation and appropriate interventions. Encouragingly, ICU recovery clinics are increasingly being established at major medical centres worldwide, helping to improve recognition and therapy for PICS. Finally, visits from ICU survivors to the ICU where they were treated might be beneficial for survivors, their families, and those who cared for them.  
<https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(22)00265-X/fulltext>

**rates & variants**

**title:** Covid-19: Parts of England see hospital admissions more than double in two weeks

BMJ |12th july 2022  
  
Some areas of England have seen the number of patients in hospital who have tested positive for covid-19 more than double in the past two weeks, latest figures show. Overall, the number of people in hospital with covid rose by 86% in a fortnight—from 6177 on 22 June to 11 465 on 6 July. But over this period, the south west region reported that the number of covid patients currently in hospital increased from 464 to 1024, while in the Midlands numbers rose from 1115 to 2239. The south east saw an increase from 812 to 1652, the figures showed. The lowest rise was seen in London with a 64% increase from 1163 to 1907. In the north east and Yorkshire and the north west regions, rates among patients in hospital rose 76% and 72% respectively, with an 85% rise in the east of England. The seven day running tally of admissions in England stands at 11 028. Similar rises have been seen in Scotland which reported a 40% increase in patients in hospital with covid in the fortnight up to 6 July, with Wales reporting an 86% increase…  
<https://www.bmj.com/content/bmj/378/bmj.o1723.full.pdf>

**title:** Covid-19: High prevalence and lack of hospital beds putting “intense pressure” on ambulances

BMJ |15th july 2022  
  
All 11 ambulance services in England are working under extreme pressure because of rising rates of covid-19 and a lack of available hospital beds, and leaders are now asking the public to take extra precautions in the hot weather to avoid adding to the already overwhelming workload.

In a statement issued on 12 July, Martin Flaherty, managing director of the Association of Ambulance Chief Executives said that the NHS ambulance sector was “under intense pressure” and was now operating at the highest level of their local resource escalation action plans, which is normally reserved for “major incidents or short term periods of unusual demand.” In their Resource Escalation Action Plan there are four levels used to describe the pressure that ambulance services are under, with level 1 being “steady state” and level 4 “extreme pressure.” Positive tests for SARS-CoV-2 rose 32% at the end of June, with an estimated 2.3 million people infected…  
<https://www.bmj.com/content/378/bmj.o1763>

**title:** Covid-19: BA.5 variant is now dominant in US as infections rise

BMJ |18th july 2022  
  
The BA.5 omicron subvariant of SARS-CoV-2 is now causing about two thirds of infections in the US, with cases now rising in almost every state. Rochelle Walensky, director of the Centers for Disease Control and Prevention, told a White House press briefing on 12 July that the seven day average number of hospital admissions for covid-19 was now about 5100, double the number in early May. In the past 14 days (to 14 July) data collated by the New York Times show a daily average 132 928 cases, a 17% increase in cases. In the same period, the daily average of hospital admissions was 39 053, an 18% increase, the average number of covid patients in intensive care was 4411, a 22% increase, and the average number of deaths a day was 415, a 10% increase. The number of infections is thought to be higher than these figures show because positive tests taken at home are often not reported. The number of deaths may also be higher because of delayed reporting over the 4 July holiday…  
<https://www.bmj.com/content/378/bmj.o1770>

**title:** Incidence and Relative Risk of COVID-19 in Adolescents and Youth Compared With Older Adults in 19 US States, Fall 2020

JAMA |15th july 2022  
  
Question How do incidence and relative risk of contracting COVID-19 from the original wild-type SARS-CoV-2 strain in adolescents and youth compare with that in older adults in the US?

Findings Results of this cross-sectional study using state health department data from the start of the pandemic through fall 2020 indicate that, in 16 of the 19 states examined, the incidence rate and relative risk of COVID-19 infection from wild-type SARS-CoV-2 were significantly greater in adolescents and youth than in older adults. For example, in Florida, the incidence rate in adolescents and youth was 0.055 compared with 0.028 in older adults—adolescents and youth had 1.94 times the risk of contracting COVID-19 compared with older adults.

Meaning These results suggest that, contrary to reports from Europe and Asia, infection rates and relative risk among US adolescents and youth exceeded that in older adults from the start of the COVID-19 pandemic through fall 2020, before vaccines were available.  
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2794321>

**infection control**

**title:** Myocarditis and pericarditis risk after covid-19 vaccination

BMJ |13th july 2022  
  
A weak evidence base leaves important questions unanswered

One of the main safety concerns associated with mRNA vaccines for covid-19 is the rare risk of myocarditis or pericarditis. Despite their large sample sizes,12 phase 3 clinical trials are unlikely to detect such rare events, especially those occurring in small subgroups. Population based studies or those using national surveillance systems are able to assess risk in much larger numbers. However, incidence rates reported in those studies can vary depending on the data source (passive versus active surveillance), geographical region, and outcome definition (eg, people admitted to hospital only or all individuals). Furthermore, the sheer number of published studies on this topic (7380 publications in Google Scholar from 1 January 2021 to 15 June 2022 alone) makes keeping up to date of the rapidly changing literature extremely challenging for clinicians.

In this context, Pillay and colleagues (doi:10.1136/bmj-2021-069445)3 conducted a systematic review to examine incidence rates, risk factors, short term clinical course, and longer term outcomes of myocarditis and pericarditis after covid-19 mRNA vaccination. Among thousands of database citations through to 10 January 2022, their team ultimately focused on 46 studies.

The authors report several important findings. First, their review provides evidence that the relative incidence of myocarditis is highest among young male individuals between the ages of 12 and 29 years after a second dose. Second, their study finds, with moderate certainty, that the incidence of myocarditis is probably higher after Moderna’s mRNA vaccine than after Pfizer-BioNTech’s vaccine. Third, with low certainty, they report that the risk of myocarditis or pericarditis might be lower when the second dose is administered more than 30 days after the first dose. Finally, the review finds that most patients are only briefly admitted to hospital and respond well to standard therapy, although long term follow-up is limited.

Despite the large numbers of studies reviewed, the overall certainty of the conclusions remains low, with a very wide range reported for myocarditis incidence. That we are now more than a year and a half into mass mRNA vaccination and still do not have strong certainty about the incidence of this clinically important outcome is disappointing. Because these events are rare, making precise estimates is difficult…  
<https://www.bmj.com/content/378/bmj.o1554>   
Linked research: <https://www.bmj.com/content/378/bmj-2021-069445>

**title:** Covid-19: MPs call for greater efforts to reach the unvaccinated and partially vaccinated

BMJ| 13th july 2022  
  
MPs have called on NHS England and the UK Health Security Agency (UKHSA) to redouble efforts to reach the almost three million adults in England who remain unvaccinated against covid-19 as well as those who are only partially vaccinated.

The Public Accounts Committee has challenged the government to reduce the overall number of unvaccinated people to 2.5 million and achieve an 80% uptake for first boosters within four months.

The committee’s report on the rollout of the covid-19 vaccine programme acknowledged its early success but said low vaccination rates persist in many vulnerable groups including pregnant women and minority ethnic groups…  
<https://www.bmj.com/content/378/bmj.o1743>   
Report: <https://committees.parliament.uk/publications/23019/documents/168825/default/>

**title:** Covid-19: Researchers face wait for patient level data from Pfizer and Moderna vaccine trials

BMJ| 12th JULY 2022  
  
Independent researchers looking to obtain patient level data from the Pfizer and Moderna covid-19 vaccine trials may have to wait longer. In status reports filed recently with the US federal trials registry (clinicaltrials.gov) between February and May, both companies extended the dates by which the trials will be completed, Pfizer by nine months, from 15 May 2023 to 8 February 2024. Moderna’s expected completion date is delayed from 27 October to 29 December 2022…  
<https://www.bmj.com/content/378/bmj.o1731>

**title:** Maternal Vaccination and Risk of Hospitalization for Covid-19 among Infants  
  
new england journal of medicine| 14th JuLY 2022  
  
Infants younger than 6 months of age are at high risk for complications of coronavirus disease 2019 (Covid-19) and are not eligible for vaccination. Transplacental transfer of antibodies against severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) after maternal Covid-19 vaccination may confer protection against Covid-19 in infants…  
  
We used a case–control test-negative design to assess the effectiveness of maternal vaccination during pregnancy against hospitalization for Covid-19 among infants younger than 6 months of age…  
  
…Maternal vaccination with two doses of mRNA vaccine was associated with a reduced risk of hospitalization for Covid-19, including for critical illness, among infants younger than 6 months of age…  
<https://www.nejm.org/doi/full/10.1056/NEJMoa2204399>

**title:** DAILY TESTING OF CONTACTS OF SARS-COV-2 INFECTED CASES AS AN ALTERNATIVE TO QUARANTINE FOR KEY WORKERS IN LIVERPOOL: A PROSPECTIVE COHORT STUDY

the lancet eclinical medicine| AUGUST 2022  
  
Covid-19 test-to-release from quarantine policies affect many lives. The SMART Release pilot was the foundation of these policies and an element of the world's largest population cohort study of community-wide, SARS-CoV-2 rapid antigen testing. The objective of the study was to evaluate daily lateral flow testing (LFT) as an alternative to 10-14 days quarantine for key worker contacts of known Covid-19 (or SARS-CoV-2 infection) cases.  
  
Methods. Prospective cohort study incorporating quantitative and qualitative research methods to consider how serial LFT compares with PCR testing to detect SARS-CoV-2 infections and to understand experiences/compliance with testing and the viability of this quarantine harm-reduction strategy. Participants were residents of the Liverpool area who were key workers at participating fire, police, NHS and local government organisations in Liverpool, and who were identified as close contacts of cases between December 2020 and August 2021. Thematic qualitative analysis was used to evaluate stakeholder meetings.

Findings. Compliance with the daily testing regime was good across the three main organisations in this study with 96·9%, 93·7% and 92·8% compliance for Merseyside Police, Merseyside Fire & Rescue Service and Alder Hey Children's Hospital respectively. Out of 1657 participants, 34 positive Covid-19 cases were identified and 3 undetected by the daily LFT regime. A total of 8291 workdays would have been lost to self-isolation but were prevented due to negative daily tests. Organisations reported that daily contact testing proved useful, flexible and well-tolerated initiative to sustain key worker services.

Interpretation. Compliance with daily testing among key workers was high, helping sustain service continuity during periods of very high risk of staffing shortage. Services reported that the pilot was a “lifeline” and its successful delivery in Liverpool has been replicated elsewhere.  
<https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370(22)00249-8/fulltext>

**title:** Long-term Immune Response to SARS-CoV-2 Infection Among Children and Adults After Mild Infection

JAMA | 13th july 2022  
  
Question What are the long-term features of the immune response to SARS-CoV-2 in children compared with adults?

Findings In this cohort study of 252 family clusters with COVID-19, anti–SARS-CoV-2 spike receptor-binding domain IgG persisted until 12 months after infection in all age groups, showing significant higher antibody peaks for younger individuals at every follow-up time point. Children younger than 3 years were found to develop higher levels of binding antibodies compared with adults older than 18 years.

Meaning This study provided novel insights into the long-term features of the immune response to COVID-19 for different age classes, which could help in optimizing future COVID-19 vaccination strategies and prevention policies.  
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2794167>

**title:** Effectiveness of a fourth dose of mRNA COVID-19 vaccine against all-cause mortality in long-term care facility residents and in the oldest old: A nationwide, retrospective cohort study in Sweden  
  
the lancet regional health europe| 13th july 2022  
  
…As compared with a third dose, a fourth dose of an mRNA COVID-19 vaccine, administered during the Omicron era, was associated with reduced risk of death from all causes in residents of LTCFs and in the oldest old during the first two months, after which the protection became slightly lower. These findings suggest that a fourth dose may prevent premature mortality in the oldest and frailest even after the emergence of the Omicron variant, although the timing of vaccination seems to be important with respect to the slight waning observed after two months.  
<https://www.thelancet.com/journals/lanepe/article/PIIS2666-7762(22)00162-4/fulltext>

**title:** Breakthrough SARS-CoV-2 infections, morbidity, and seroreactivity following initial COVID-19 vaccination series and additional dose in patients with SLE in New York City  
  
the lancet rheumatology | 12th july 2022  
  
…To our knowledge, this study represents the first report of the clinical efficacy of the initial vaccination series and an additional dose against COVID-19, inclusive of the omicron BA.1 wave in New York City, and the first known longitudinal documentation of antibody responses to vaccination against COVID-19 in a cohort of patients with SLE. Protection from infection in patients receiving an additional vaccine dose and the low hospitalisation rate of vaccinated patients is reassuring, given the inherent risks in this patient population.  
<https://www.thelancet.com/journals/lanrhe/article/PIIS2665-9913(22)00190-4/fulltext>

**title:** Reactogenicity and Concomitant Administration of the COVID-19 Booster and Influenza Vaccine  
  
JAMA | 15th july 2022  
  
…Substantial efforts have been undertaken to increase rates of COVID-19 vaccination and boosting; however, less effort has focused on influenza vaccination. Nationally, during the 2020 to 2021 season, influenza vaccination coverage was only 50.2%.7 Significant disparities have also been noted by race and ethnicity. Influenza results in significant morbidity annually which could be averted by increased vaccination coverage. Despite the limitations detailed above, the data reported by Hause et al3 suggest that the development of public health campaigns to increase dual vaccination should be undertaken. Although logistical challenges may serve as barriers to the implementation of dual vaccination, organizing for provision of both influenza vaccination and COVID vaccination within clinical settings and at community-based nonclinical venues would be advantageous and may increase the likelihood of uptake. Given the small increase in rate of adverse events reported by Hause et al,3 health care systems should be encouraged to develop routine and streamlined processes for coadministration of these vaccinations.  
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2794324>

**title:** SAFETY OF HETEROLOGOUS PRIMARY AND BOOSTER SCHEDULES WITH CHADOX1-S AND BNT162B2 OR MRNA-1273 VACCINES: NATIONWIDE COHORT STUDY

BMJ| 13th july 2022  
  
…Heterologous primary and booster covid-19 vaccine schedules of ChAdOx1-S priming and mRNA booster doses as both second and third doses were not associated with increased risk of serious adverse events compared with homologous mRNA vaccine schedules. These results are reassuring but given the rarity of some of the adverse events, associations cannot be excluded.  
<https://www.bmj.com/content/378/bmj-2022-070483>

**title:** VACCINE EFFECTIVENESS OF ONE, TWO, AND THREE DOSES OF BNT162B2 AND CORONAVAC AGAINST COVID-19 IN HONG KONG: A POPULATION-BASED OBSERVATIONAL STUDY

the lancet infectious diseases| 13th july 2022  
  
…Third doses of either BNT162b2 or CoronaVac provide substantial additional protection against severe COVID-19 and should be prioritised, particularly in older adults older than 60 years and others in high-risk populations who received CoronaVac primary schedules. Longer follow-up is needed to assess duration of protection across different vaccine platforms and schedules.  
<https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(22)00345-0>

**title:** Perilous two-tier COVID-19 global vaccine roll-out

the lancet | 11th JULY 2022  
  
“The essence of global health equity is the idea that something so precious as health might be viewed as a right.”1 This beautiful sentiment, a legacy of the inspirational Paul Farmer, powerfully accentuates the evocative Comment published online in the week of his death.2 Arguing persuasively for the waiver of intellectual property rights for COVID-19 vaccines, the authors' philosophy resonates with the WHO Values Framework for the Allocation and Prioritization of COVID-19 Vaccines' vision that “COVID-19 vaccines must be a global public good”.

Tragically, COVAX, the revolutionary mechanism for equitably supplying COVID-19 vaccines to everyone, has fallen well short of this ideal. High-income countries (HICs) have failed to adequately contribute financially and thus guarantee universal vaccine access, and in an attempt to encourage greater HIC participation, double-standard vaccination targets (20% for low-income and middle-income countries [LMICs] and 50% for HICs) were introduced in the COVAX self-financing mechanism…  
<https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(22)01284-3/fulltext>

**recovery**

**title:** Preparing for uncertainty: endemic paediatric viral illnesses after COVID-19 pandemic disruption

the lancet | 14th july 2022  
  
Non-pharmaceutical interventions (NPIs) and societal behavioural changes during the COVID-19 pandemic altered not only the spread of SARS-CoV-2, but also the predictable seasonal circulation patterns of many endemic viral illnesses in children.1 Before 2020, respiratory syncytial virus (RSV) and non-pandemic influenza viruses peaked in the winter in northern and southern hemispheres outside of tropical areas.2 In temperate climates, non-polio enteroviruses circulated in the summer to autumn3 in cyclical patterns.4 The COVID-19 pandemic has led to a departure from these patterns and, in many locations, usual circulation of these viruses was absent for more than a year only to resurge in unexpected ways. Past and present pandemic disruptions make it essential to prepare for further uncertainty in future endemic virus circulation among children…  
<https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(22)01277-6/fulltext>

**title:** Covid continues to disrupt: what is the plan to deal with it?

BMJ |18th july 2022  
  
…Everyone wants a brilliant NHS. But to achieve that in this new context, we are going to need a serious dose of political honesty, and perhaps even bravery. Covid-19 has brought about a new paradigm, and with it, the need for new solutions. There is no benefit in making empty promises about what targets will be delivered and then throwing around blame when they cannot be achieved. The fact of covid-19 needs to be acknowledged and plans need to be realistic. Yet is society ready to accept an NHS that experiences a version of winter pressures in multiple waves throughout the year? Are politicians ready to accept that this covid-driven Groundhog Day is the reality we currently face? Is anyone willing to take further significant action to reduce the spread?

Our hopes now rest around system working, collaboration, and innovation. To give these processes a fighting chance, the government must prioritise getting NHS estates, equipment, capacity, flow, workforce, and social care capacity into a much stronger position. We know that the current cost of living crisis conspires against this ambition. That’s why we need politicians and health leaders to be honest with their public and courageous with their policy.  
  
Politicians cannot continue to promise easy solutions, or cheerily proclaim that the pandemic is behind us, and the future is rosy. We need to have grown-up conversations now, face this challenge head-on, together. Anything else would be disingenuous, and not worthy of a vote.  
<https://www.bmj.com/content/378/bmj.o1780>

**title:** Covid-19: Antimicrobial resistance rose dangerously in US during pandemic, CDC says

BMJ | 14TH JULY 2022  
  
Resistance to antibiotics and to antifungals rose dramatically during the covid pandemic, reversing previous gains, the US Centers for Disease Control and Prevention has warned. A CDC report issued on 12 July noted that during the first year of the pandemic some 29 400 people died from antimicrobial resistant infections, nearly 40% of which were acquired in hospital. The CDC’s director, Rochelle Walensky, called for immediate action and funding to reverse the setback. “We must prepare our public health systems to fight multiple threats, simultaneously,” she said…  
[Covid-19: Antimicrobial resistance rose dangerously in US during pandemic, CDC says | The BMJ](https://www.bmj.com/content/378/bmj.o1755#:~:text=News-,Covid%2D19%3A%20Antimicrobial%20resistance%20rose%20dangerously%20in,US%20during%20pandemic%2C%20CDC%20says&text=Resistance%20to%20antibiotics%20and%20to,Control%20and%20Prevention%20has%20warned.)

**title:** Why we still need a pandemic treaty  
  
the lancet global health| 13th july 2022  
  
…The universality and severity of COVID-19 was a missed opportunity to provide the political motivation needed to actualise reforms to the health emergencies preparedness and response framework that were long overdue.7 But now the headlines have shifted away from COVID-19:8 inflation is high, energy prices and food insecurity are increasing, and Russia is at war in Ukraine. Although the emergence of competing political priorities was expected, it highlights the importance of maintaining what momentum remains. If we stop with an instrument at the level of WHO, we will miss the political and transnational dimensions of pandemic preparedness and response.

Now that the World Health Assembly has concluded and the pandemic instrument talks move forward, we cannot give up before we begin—no matter how much the political attention shifts. What we learned from COVID-19 is that data and evidence play too small a role in decision making, which means that we need to focus less on what states should do and focus more on what they did not do, including why they did not comply with the IHR during the pandemic.9 An important step to prepare for future disease outbreaks is committing to a treaty that keeps the issue elevated at the head of state-level; so that states are ready to live up to their commitments and work together in a coordinated response when the next pandemic hits.  
<https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(22)00278-9/fulltext>

**title:** Addressing Backlogs And Managing Waiting Lists During And Beyond The Covid-19 Pandemic

EUROPEAN OBSERVATORY ON HEALTH SYSTEMS AND POLICIES | 12st july 2022  
  
Postponement of non-emergency procedures to keep capacity available for Covid-19 patients, and to avoid infections, has led to backlogs of care in virtually all countries. As each delay in diagnosis and treatment may worsen health prospects, health systems have sought to understand and address the extent of the backlogs and their drivers. This briefing sets out the drivers that can increase the backlog and those that can decrease the backlog.  
[Addressing backlogs and managing waiting lists during and beyond the COVID-19 pandemic (who.int)](https://eurohealthobservatory.who.int/publications/i/addressing-backlogs-and-managing-waiting-lists-during-and-beyond-the-covid-19-pandemic)

**mental health**

**title:** Eating Disorder Diagnoses in Children and Adolescents in Norway Before vs During the COVID-19 Pandemic

JAMA| 13th july 2022  
  
…We found a substantial increase in the number of girls diagnosed with eating disorders in Norway starting after onset of the COVID-19 pandemic. The timing of the trend disruption suggests that the increase was associated with societal changes induced by the pandemic, including restrictions placed on youth’s lives, education, and activities. Limitations were that follow-up was incomplete for teenagers older than 16 years, we could not distinguish between eating disorder subtypes, and diagnostic data were not validated. Our findings are similar to those from North America,1-4 suggesting that the increase in eating disorders occurred internationally.  
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2794170>

**title:** Policy changes needed to address the mental health impact of COVID-19 in Iran

the lancet psychiatry | august 2022  
  
In Iran, in 2019, mental health disorders accounted for 12·56% of the disease burden in women, whereas, in men it was comparatively lower, at 8·43%.1 The COVID-19 pandemic has increased the incidence of factors that adversely affect mental health (eg, family disputes, social isolation, fear of contagion, uncertainty, chronic stress, hopelessness, feelings of entrapment and burdensomeness, substance misuse, loneliness, domestic violence, child neglect or abuse, unemployment, and economic difficulties), while concurrently reducing access to mental health services.2 Thus, we can expect an overall increase in the burden of mental health disorders. After the COVID-19 pandemic began, in 2020–21, the incidence of death by suicide in Iran increased substantially to 6·6 cases per 100 000 people (an increase of 7·8% from the previous year); however, it reached 16·5 cases per 100 000 people in some provinces, with the highest proportion in individuals aged 18–29 years (33·9%). However, in Iran, policy makers are focused on efforts to mitigate the pandemic's devastating economic and social impacts, and the long-term consequences on mental health are being overlooked…  
<https://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366(22)00203-6/fulltext>

**public health & health inequalities**

**title:** Racial and Ethnic Disparities in Cancer Care During the COVID-19 Pandemic

JAMA| 14th july 2022  
  
Question Did racial and ethnic minority adults with cancer in the United States experience more cancer care delays and adverse social and economic effects than White adults during the COVID-19 pandemic?

Findings In this survey study of 1240 US adults with cancer, Black and Latinx adults reported experiencing higher rates of delayed cancer care and more adverse social and economic effects than White adults.

Meaning This study suggests that the COVID-19 pandemic is associated with disparities in the receipt of timely cancer care among Black and Latinx adults.  
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2794206>

**title:** Global Changes in Child and Adolescent Physical Activity During the COVID-19 Pandemic: A Systematic Review and Meta-analysis

JAMA pedatrics | 11th july 2022  
  
Question To what extent has the COVID-19 pandemic affected the global physical activity levels of children and adolescents?

Findings In this systematic review and meta-analysis of 22 international longitudinal studies that included 14 216 children 18 years and younger, pooled estimates revealed a decrease of 17 minutes per day in children’s moderate-to-vigorous physical activity from prepandemic to during the COVID-19 pandemic.

Meaning Restrictions implemented during the COVID-19 pandemic have affected children’s levels of physical activity, particularly moderate-to-vigorous physical activity; children’s movement behaviors should be at the forefront of pandemic recovery efforts.  
<https://jamanetwork.com/journals/jamapediatrics/fullarticle/2794075>

**title:** David Oliver: Covid-19 and the Dunning-Kruger effect

BMJ | 13th july 2022  
  
In 1999 two social psychologists, Dunning and Kruger, described the phenomenon of “illusory superiority”: a cognitive bias in which people who are unskilled, yet unaware of their lack of competence, have an inflated self-assessment of their own abilities and a lack of insight to recognise their incompetence. Dunning and Kruger also described a cognitive bias in which people who do excel and are highly expert tend to underestimate their knowledge and performance by overestimating these in others, and they fail to recognise their own exceptional abilities.12

It seems that this cognitive bias has played a part in the public narrative and debate around our pandemic response. The covid era has seen plenty of people with no relevant background or experience steaming confidently into the media arena and often arguing with professional experts about their specific disciplines and daily work, often seemingly unaware of just how much they don’t know…  
<https://www.bmj.com/content/378/bmj.o1701>

**international perspectives**

**title:** Strategies for managing patients with psychiatric illness in the reopening period of the COVID-19 pandemic in China

the lancet psychiatry | 13th july 2022  
  
Since the start of the COVID-19 pandemic in early 2020, China has adopted an ongoing, community-based, dynamic, zero-COVID-19 policy. However, with the highly transmissible omicron variant becoming predominant, the cost of implementing a zero-COVID-19 policy is increasing.1 Given the growing prevalence of vaccination, the decreasing COVID-19 fatality rate, and the development of herd immunity, some health professionals and researchers have advocated for de-escalation and easing of restrictions to mitigate the economic impact of mass lockdowns.1, 2 However, several challenges facing some susceptible populations, such as patients with psychiatric disorders, should be considered.  
<https://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366(22)00198-5/fulltext>

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[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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