COVID-19 weekly update

12th September 2022

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**clinical management**

**title:** Anti-C5a antibody (vilobelimab) therapy for critically ill, invasively mechanically ventilated patients with COVID-19 (PANAMO): a multicentre, double-blind, randomised, placebo-controlled, phase 3 trial

the lancet respiratory medicine | 8th SEPTember 2022

Vilobelimab, an anti-C5a monoclonal antibody, was shown to be safe in a phase 2 trial of invasively mechanically ventilated patients with COVID-19. Here, we aimed to determine whether vilobelimab in addition to standard of care improves survival outcomes in this patient population…

… In addition to standard of care, vilobelimab improves survival of invasive mechanically ventilated patients with COVID-19 and leads to a significant decrease in mortality. Vilobelimab could be considered as an additional therapy for patients in this setting and further research is needed on the role of vilobelimab and C5a in other acute respiratory distress syndrome-causing viral infections.
[https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(22)00297-1/fulltext](https://www.thelancet.com/journals/lanres/article/PIIS2213-2600%2822%2900297-1/fulltext)

**title:** Dipeptidyl peptidase-1 inhibition in patients hospitalised with COVID-19: a multicentre, double-blind, randomised, parallel-group, placebo-controlled trial

THE LANCET RESPIRATORY MEDICINE | 5TH SEPTember 2022

Neutrophil serine proteases are involved in the pathogenesis of COVID-19 and increased serine protease activity has been reported in severe and fatal infection. We investigated whether brensocatib, an inhibitor of dipeptidyl peptidase-1 (DPP-1; an enzyme responsible for the activation of neutrophil serine proteases), would improve outcomes in patients hospitalised with COVID-19…

…Brensocatib treatment did not improve clinical status at day 29 in patients hospitalised with COVID-19.
 [https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(22)00261-2/fulltext](https://www.thelancet.com/journals/lanres/article/PIIS2213-2600%2822%2900261-2/fulltext)

**title:** Evaluation of Risk Factors for Postbooster Omicron COVID-19 Deaths in England

jama | 8th september 2022

With the emergence of the Omicron variant, it has become critical to identify risk factors associated with COVID-19 death in individuals who have completed primary vaccination and received a messenger RNA (mRNA) booster dose. Existing evidence is based on people who have received 1 or 2 doses of a COVID-19 vaccine and were infected by the Alpha or Delta variant.1-3 Understanding which groups are at increased risk of COVID-19 death after receiving a booster is crucial for the prioritization of further booster doses and access to COVID-19 therapeutics.

Methods. We used data from the Office for National Statistics Public Health Data Asset, a population-level linked data set combining the 2011 Census of England and Wales and electronic health records covering 80% of the population of England

…This study identified subpopulations that remain at increased risk of COVID-19 fatality after receiving their booster vaccine during the Omicron wave. Age remained the factor most associated with the risk of death, and men were at higher risk than women. The association with ethnicity was unclear and differed from previous studies, but this is likely to be due largely to the pronounced differences in vaccination uptake between ethnic groups in previous studies.4 Limitations of our study were that we only included data for the population living in England who were enumerated in the 2011 Census of England and Wales. The association between the QCovid risk groups and the risk of death were stronger in people who had received a booster and were infected by the Omicron variant compared with evidence from the Alpha and Delta period in doubly vaccinated individuals.1-3 The subpopulations with the highest risk should be considered a priority for COVID-19 therapeutics and further booster doses.
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2796000>

**title:** Is neutrophilic inflammation treatable in COVID-19?

THE LANCET RESPIRATORY MEDICINE | 5TH SEPTember 2022

…One of the lessons of the many trials is that the current understanding of neutrophils in COVID-19 is too simplistic and in-depth knowledge to understand their complex functions is needed. The transcriptional and functional heterogeneity of neutrophils is increasingly being recognised along with the role of neutrophils in resolving inflammation.2, 10 For therapeutic development, fine-tuning of neutrophil recruitment and responses could be important in balancing protective, reparative, and injurious effects during pulmonary inflammation. Sensitive and rapid point-of-care tests to monitor the inflammatory profiles of patients to guide therapy would be of great use. Measuring the activities of disease-associated immune modulators, such as proteases, might be a step towards personalised and timely therapeutic approaches for COVID-19. Although Keir and colleagues5 have provided evidence in this trial that broad-spectrum targeting of neutrophil serine proteases is not beneficial for patients with COVID-19, we should remain open-minded that different approaches to precision-target neutrophils might enable improvement of clinical outcomes.
[https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(22)00293-4/fulltext](https://www.thelancet.com/journals/lanres/article/PIIS2213-2600%2822%2900293-4/fulltext)

**title:** Can vitamin D protect against covid-19? [editorial]

BMJ| 7th SEPTember 2022

Two new trials find no effect, but aren’t the final word

Vitamin D is an important regulator of calcium balance. In addition, it has important effects on the immune system, directly inducing antimicrobial peptides at mucosal surfaces and modulating the function of T cells.12 Observational studies from the pre-pandemic era found an association between low levels of vitamin D and an increased risk of respiratory tract infections.3 Results from randomised controlled trials were mixed, but two large meta-analyses found some evidence of a protective effect of vitamin D supplementation against respiratory tract infections, particularly in vitamin D deficient individuals.45 Could vitamin D help protect against covid-19?

…Vaccination is still the most effective way to protect people from covid-19, and vitamin D and cod liver oil supplementation should not be offered to healthy people with normal vitamin D levels. Importantly, these new trials remain compatible with the two large meta-analyses suggesting that vitamin D supplementation may be beneficial for vitamin D deficient individuals.45 A pragmatic approach for the clinician could be to focus on risk groups; those who could be tested before supplementation, including people with dark skin, or skin that is rarely exposed to the sun; pregnant women; and elderly people with chronic diseases. For those with inadequate vitamin D levels (<50 nmol/L), supplementation with 1000-2000 IU/day could be a safe, simple, and affordable way to restore vitamin D levels, improve bone health, and take advantage of any possible protective effect against respiratory tract infections.

Linked research: [Effect of a test-and-treat approach to vitamin D supplementation on risk of all cause acute respiratory tract infection and covid-19: phase 3 randomised controlled trial (CORONAVIT)](https://www.bmj.com/content/378/bmj-2022-071230)

Linked research: [Prevention of covid-19 and other acute respiratory infections with cod liver oil supplementation, a low dose vitamin D supplement: quadruple blinded, randomised placebo controlled trial](https://www.bmj.com/content/378/bmj-2022-071245)

**title:** Nirmatrelvir–Ritonavir and Viral Load Rebound in Covid-19

new england journal of medicine | 7th september 2022

Cases of recurrence of clinical symptoms of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) after completion of treatment with nirmatrelvir–ritonavir have been reported by researchers1 and in a Centers for Disease Control and Prevention Health Advisory.2 The frequency and clinical implications of potential recurrence of coronavirus disease 2019 (Covid-19) are unknown.

We present data on the occurrence of viral load rebound from a phase 2–3, double-blind, randomized, controlled trial (EPIC-HR3), which enrolled 2246 symptomatic, unvaccinated outpatient adults at high risk for progression to severe coronavirus disease 2019 (Covid-19) within 5 days after symptom onset.

… Thus, the incidence of viral load rebound was similar in the nirmatrelvir–ritonavir group and the placebo group. The occurrence of viral load rebound was not retrospectively associated with low nirmatrelvir exposure, recurrence of moderate-to-severe symptoms, or development of resistance to nirmatrelvir.
<https://www.nejm.org/doi/full/10.1056/NEJMc2205944>

**long term effects**

**title:** Sociodemographic Characteristics and Comorbidities of Patients With Long COVID and Persistent Olfactory Dysfunction

JAMA | 8th SEPTEMBER 2022

Question What are the sociodemographic and clinical characteristics of patients with long COVID and persistent olfactory dysfunction?

Findings In this cross-sectional study of 219 patients with long COVID and neurologic symptoms, 64% had olfactory dysfunction, with the highest prevalence among women, adults, and outpatients. Patients with olfactory dysfunction may develop severe olfactory loss (hyposmia or anosmia) that may persist for more than 1 year after the onset of symptoms.

Meaning This study suggests that olfactory dysfunction in patients with long COVID may become permanent.
[https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(22)00323-0/fulltext](https://www.thelancet.com/journals/langlo/article/PIIS2214-109X%2822%2900323-0/fulltext)

**title:** Associations of Depression, Anxiety, Worry, Perceived Stress, and Loneliness Prior to Infection With Risk of Post–COVID-19 Conditions

JAMA psychiatry |7th september 2022

Question Is psychological distress before SARS-CoV-2 infection associated with risk of COVID-19–related symptoms lasting 4 weeks or longer, known as post–COVID-19 conditions?

Findings This cohort study found that among participants who did not report SARS-CoV-2 infection at baseline (April 2020) and reported a positive SARS-CoV-2 test result over 1 year of follow-up (N = 3193), depression, anxiety, perceived stress, loneliness, and worry about COVID-19 were prospectively associated with a 1.3- to 1.5-fold increased risk of self-reported post–COVID-19 conditions, as well as increased risk of daily life impairment related to post–COVID-19 conditions.

Meaning In this study, preinfection psychological distress was associated with risk of post–COVID-19 conditions and daily life impairment in those with post–COVID-19 conditions.
<https://jamanetwork.com/journals/jamapsychiatry/fullarticle/2796097>

**rates & variants**

**title:** Misclassification bias in estimating clinical severity of SARS-CoV-2 variants

the lancet | 10th september 2022

…After correcting for misclassification bias, the intrinsic severity of the omicron variant of SARS-CoV-2 might be even lower than that suggested by Nyberg and colleagues.
[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(22)01469-6/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2822%2901469-6/fulltext)

**title:** Neutralisation sensitivity of the SARS-CoV-2 omicron BA.2.75 sublineage

the lancet infectious diseases |6th september 2022

…Variants of SARS-CoV-2 with reduced sensitivity to neutralising antibodies can pose a challenge to immunity induced by vaccination or infection and can render therapeutic monoclonal antibodies ineffective.3, 4, 5, 6 Our results suggest that the mutations in the spike protein of the BA.2.75 sublineage decrease susceptibility to vaccine-induced neutralising activity compared with BA.2, albeit to a lesser extent than the mutations present in BA.4/5. Moreover, BA.2.75 showed an overall higher sensitivity to SARS-CoV-2 neutralising monoclonal antibodies in advanced development, including antibodies currently in clinical use. Although our analysis of vaccinee sera was limited to a single post-booster timepoint, our results and those of others suggest that antibody escape is an overall less pronounced characteristic of BA.2.75 compared with BA.4/5.7, 8, 9 Thus, additional features favouring viral expansion beyond vaccine escape might be required for BA.2.75 to gain a growth advantage over BA.4/5.
[https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(22)00580-1](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099%2822%2900580-1)

**infection control**

**title:** Flu, covid, and bivalent vaccines: five minutes with . . . Anthony Harnden

BMJ |6th September 2022

Trisha Greenhalgh and colleagues explore why inaccurate narratives about the mode of transmission
The deputy chair of the Joint Committee on Vaccination and Immunisation spoke to the Royal Society of Medicine about the upcoming influenza season and the new bivalent covid-19 vaccine.
<https://www.bmj.com/content/378/bmj.o2164.full>

**title:** COVID-19 vaccination protects children and adolescents

the lancet infectious diseases| 9th september 2022

…Growing literature paints a consistent picture that COVID-19 vaccination provides short-term protection for children and adolescents against SARS-CoV-2 infection during the omicron-predominant era, but the extent to which BNT162b2 vaccine protection persists beyond the 35 days after the second dose in children and 60 days after the booster dose in adolescents observed in Amir and colleagues’ study is not clear. Monitoring the duration of COVID-19 vaccine protection will be a public health priority, especially as waning protection after two BNT162b2 doses has been observed in other paediatric studies.3, 6, 8

Consistent with findings from the USA3, 4 and England,5 Amir and colleagues found substantially lower rates of confirmed SARS-CoV-2 infection among vaccinated children and among boosted adolescents compared with unvaccinated children and adolescents. We are encouraged by these results, which further emphasise the benefit of vaccinating children and adolescents with all recommended vaccine doses.
[https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(22)00575-8/fulltext](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099%2822%2900575-8/fulltext)
Linked research: [Initial protection against SARS-CoV-2 omicron lineage infection in children and adolescents by BNT162b2 in Israel: an observational study](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099%2822%2900527-8/fulltext)

**title:** Durability of Booster mRNA Vaccine against SARS-CoV-2 BA.2.12.1, BA.4, and BA.5 Subvariants

new england journal of medicine | 7th september 2022

…The decrease in booster durability appeared to be slower than the decrease that was previously reported for two doses of mRNA vaccine alone.3 Although the rate of booster neutralizing-antibody decay was similar among variants, the omicron subvariants, especially BA.4/5, had substantial neutralization resistance. Our observed trends are consistent with the waning of vaccine protection and natural immunity,4,5 and our data suggest that both SARS-CoV-2 variant evolution and waning neutralizing-antibody titers reduce booster-induced immune protection. Our anecdotal experience in two participants indicates that a fourth dose of vaccine may be effective. A variant-specific booster may become necessary as new variants evolve.
<https://www.nejm.org/doi/full/10.1056/NEJMc2210546>

**title:** Analysis of Vaccine Reactions After COVID-19 Vaccine Booster Doses Among Pregnant and Lactating Individuals

jama |8th september 2022

Question What experiences have pregnant and lactating individuals had after the COVID-19 vaccine booster or third dose?

Findings This cohort study of 17 014 participants found that most individuals (82.8%) reported a local reaction and that 67.9% reported at least 1 systemic symptom after a COVID-19 vaccine booster or third dose. Most pregnant (97.6%) and lactating (96.0%) individuals reported no obstetric or lactation concerns after vaccination.

Meaning This study suggests that the COVID-19 vaccine booster or third dose was well tolerated among pregnant and lactating individuals.
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2795998>

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

new england journal of medicine |31st august 2022

…A total of 15 hospitalizations and no known deaths were noted among the 273,157 vaccinated children (Table S1). Estimates of the effectiveness of two doses of BNT162b2 and of previous SARS-CoV-2 infection against Covid-19–related hospitalization were higher than estimates of the effectiveness against infection, but uncertainties were greater owing to a smaller number of events (Figure 1E and 1F and Tables S5 and S6).

Both the BNT162b2 vaccine and previous infection were found to confer considerable immunity against omicron infection and protection against hospitalization and death. The rapid decline in protection against omicron infection that was conferred by vaccination and previous infection provides support for booster vaccination.
<https://www.nejm.org/doi/full/10.1056/NEJMc2209371>

**title:** Evaluating novel COVID-19 vaccines in the current chapter of the pandemic

the lancet infectious diseases | 5th september 2022

…Taken together, VLA2001 can be regarded a promising addition to the arsenal of COVID-19 vaccines. However, despite the positive findings of Lazarus and colleagues, it is important to note that the bridging with ChAdOx1-S might not be an optimal choice. ChAdOx1-S was shown to induce less virus-specific immune responses than the mRNA-based vaccines.4 Additionally, the usefulness of VLA2001 in the current phase of the pandemic remains to be determined through critical studies with VLA2001 in the intended target populations, thereby defining its position in the landscape of available vaccines.
[https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(22)00517-5/fulltext](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099%2822%2900517-5/fulltext)
Linked research: [Immunogenicity and safety of an inactivated whole-virus COVID-19 vaccine (VLA2001) compared with the adenoviral vector vaccine ChAdOx1-S in adults in the UK (COV-COMPARE): interim analysis of a randomised, controlled, phase 3, immunobridging trial](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099%2822%2900502-3/fulltext)

**title:** COVID-19 VACCINE-INDUCED ANTIBODY AND T-CELL RESPONSES IN IMMUNOSUPPRESSED PATIENTS WITH INFLAMMATORY BOWEL DISEASE AFTER THE THIRD VACCINE DOSE (VIP): A MULTICENTRE, PROSPECTIVE, CASE-CONTROL STUDY

the lancet gastroenterology & Hepatology| 8th september 2022

…A third dose of COVID-19 vaccine induced a boost in antibody binding in immunosuppressed patients with IBD, but these responses were reduced in patients taking infliximab, infliximab plus thiopurine, and tofacitinib. Tofacitinib was also associated with reduced T-cell responses. These findings support continued prioritisation of immunosuppressed groups for further vaccine booster dosing, particularly patients on anti-TNF and JAK inhibitors.
[https://www.thelancet.com/pdfs/journals/laninf/PIIS1473-3099(22)00524-2.pdf](https://www.thelancet.com/pdfs/journals/laninf/PIIS1473-3099%2822%2900524-2.pdf)

**title:** Learnings from the Australian first few X household transmission project for COVID-19

THE LANCET REGIONAL HEALTH WESTERN PACIFIC| 5TH SEPTEMBER 2022

…Our study provides important baseline data characterising the transmission of early SARS-CoV-2 strains from children and adults in Australia, against which properties of variants of concern can be benchmarked. We encountered many challenges with respect to logistics, ethics, governance and data management. Continued efforts to invest in preparedness research will help to test, refine and further develop Australian FFX study protocols in advance of future outbreaks.
[https://www.thelancet.com/journals/lanwpc/article/PIIS2666-6065(22)00188-2/fulltext](https://www.thelancet.com/journals/lanwpc/article/PIIS2666-6065%2822%2900188-2/fulltext)

**title:** Comparison of Semen Quality Before and After Inactivated SARS-CoV-2 Vaccination Among Men in China

jama | 8th september 2022

…The findings of this cohort study suggest that inactivated SARS-CoV-2 vaccination had no detrimental effect on sperm numbers and motility among men in China. These findings contribute to increasing data regarding the reproductive safety of SARS-CoV-2 vaccines and can be reassuring for vaccinated male patients who are planning a pregnancy.
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2796001>

**title:** COVID-19-Associated Hospitalizations Among Vaccinated and Unvaccinated Adults 18 Years or Older in 13 US States, January 2021 to April 2022

JAMA internal medicine | 8th september 2022

Question How do COVID-19–associated hospitalization rates compare among adults who are unvaccinated and vaccinated, and what are the risk factors for hospitalization for COVID-19 among vaccinated persons?

Findings In this cross-sectional study of US adults hospitalized with COVID-19 during January 2022 to April 2022 (during Omicron variant predominance), COVID-19-associated hospitalization rates were 10.5 times higher in unvaccinated persons and 2.5 times higher in vaccinated persons with no booster dose, respectively, compared with those who had received a booster dose. Compared with unvaccinated hospitalized persons, vaccinated hospitalized persons were more likely to be older and have more underlying medical conditions.

Meaning The study results suggest that COVID-19 vaccines are strongly associated with prevention of serious COVID-19 illness.
<https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2796235>

**title:** APPLICATION OF STATISTICAL LEARNING TO IDENTIFY OMICRON MUTATIONS IN SARS-COV-2 VIRAL GENOME SEQUENCE DATA FROM POPULATIONS IN AFRICA AND THE UNITED STATES

JAMA|7th SEPTEMBER 2022

Question. Could the SARS-CoV-2 Omicron variant have been detected earlier with existing surveillance data and a state-of-the-art statistical learning strategy?

Findings In this case series of 2698 Omicron cases in Africa and 12 141 Omicron cases in the United States, a statistical learning strategy found that Omicron was dynamically expanding in Africa and the United States with trackable expansion over time. The results indicated that Omicron could have been detected 20 days earlier in Africa; similarly, 8 Omicron cases were detected in the United States by November 25, 2021, prior to the official US Centers for Disease Control and Prevention declaration.

Meaning These findings suggest that novel data analytics such as statistical learning strategy may have applications for surveillance of SARS-CoV-2 variantserologous primary and booster covid-19 vaccine schedules of ChAdOx1-S priming and mRNA.
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2795987>

**title:** EPIDEMIOLOGICAL CHARACTERISTICS AND TRANSMISSION DYNAMICS OF THE OUTBREAK CAUSED BY THE SARS-COV-2 OMICRON VARIANT IN SHANGHAI, CHINA: A DESCRIPTIVE STUDY

the lancet regional helath western pacific | 6th september 2022

…Our results highlight the risk of widespread outbreaks in mainland China, particularly under the heightened pressure of imported infections. The targeted interventions adopted in March 2022 were not capable of halting transmission, and the implementation of a strict, prolonged city-wide lockdown was needed to successfully contain the outbreak, highlighting the challenges for containing Omicron outbreaks.
[https://www.thelancet.com/journals/lanwpc/article/PIIS2666-6065(22)00207-3/fulltext](https://www.thelancet.com/journals/lanwpc/article/PIIS2666-6065%2822%2900207-3/fulltext)

**recovery**

**title:** Role of scientific advice in covid-19 policy

bmj | 7th september 2022

Holly Jarman and colleagues discuss why scientific advice must be separate from government decisions and evaluate the autonomy and transparency of the UK’s system.

Key message:

Governments claimed to be following scientific advice during the pandemic to legitimise decisions

Advice should be autonomous to ensure that governments do not simply seek advice that aligns with what they want to hear

Transparency is also essential to know who gave the advice and what the government did with it

The UK’s advice system was not autonomous, being designed to answer questions posed by government with advisers appointed by government

The system became more transparent as a result of political pressure.
<https://www.bmj.com/content/378/bmj-2022-070572>

**title:** How to cope with emerging viral diseases: Lessons from South Korea's strategy for COVID-19, and collateral damage to cardiometabolic health

the lancet regional health western pacific |4th september 2022

South Korea is a unique country in many aspects in terms of its strategy against the COVID-19 pandemic. From February 2020, the South Korean government adopted active epidemiological investigations, strict isolation of affected patients, and extensive public lockdowns, which were helpful in controlling spread until the end of 2021. This stable situation in South Korea has changed dramatically since the Omicron variant—reportedly less severe but more infective than the original strain—became dominant from January 2022. From mid-February to mid-April 2022, daily cases of COVID-19 in South Korea increased steeply, reaching > 600,000 cases/day: the highest incidence rate in the world at that time. Despite this rapid increase, the South Korean government has eased its preventive strategies progressively, based on the belief in the efficacy of >80% of vaccine coverage in the population. Now, in June 2022, the COVID-19 situation in South Korea is improving. The mortality rate is 0·13%: the lowest among the 30 countries with the highest case counts. High vaccine coverage rate (87·7%), the efficient healthcare system, and active co-operation between private sectors and the central government seem to have contributed to this. However, it should also be noted that the COVID-19 pandemic and its preventive measures have had a negative influence on cardiometabolic profiles in the country. Considering the likelihood of another novel variant of SARS-CoV-2 or new infectious disease emerging in the future, understanding the situation in South Korea and the strategies flexibly adopted by its government could be beneficial for many countries.
[https://www.thelancet.com/journals/lanwpc/article/PIIS2666-6065(22)00196-1/fulltext](https://www.thelancet.com/journals/lanwpc/article/PIIS2666-6065%2822%2900196-1/fulltext)

title: DR FAUCI AND THE ART OF SCIENCE COMMUNICATION

JAMA |9th september 2022

Anthony Fauci, MD, will remain a prominent figure in public health even after he leaves his posts directing the National Institute of Allergy and Infectious Diseases (NIAID) for nearly 4 decades and serving as chief medical advisor to US President Joe Biden. During a recent interview, Fauci spoke with JAMA Editor in Chief Kirsten Bibbins-Domingo, PhD, MD, MAS, about his announcement to step down in December and the dos and don’ts of communicating science in a polarized era. The following is an edited version of their conversation.
<https://jamanetwork.com/journals/jama/fullarticle/2796310>

**title:** Residency Training in the COVID-19 Pandemic—Addressing the Need for Systems-Based Education

JAMA| 9th september 2022

The academic graduation season of 2022 marked the first, though seemingly not last, in which some residents completed their training with every year dominated by the COVID-19 pandemic. As recent residency graduates meeting these criteria, we are struck by how little we know about practicing medicine in a nonpandemic world. Virtual visits, high hospital censuses, and widespread understaffing were the norm throughout our training, replacing many of the typical residency learning experiences. These changes hindered residents’ development of nonclinical skills crucial for practicing medicine in the US health system, stalling prior progress in systems-based education. As the world transitions to postpandemic normalcy, it is incumbent upon residency programs, health systems, and regulatory bodies to learn from these experiences to ensure and improve the quality of future training.
<https://jamanetwork.com/journals/jama-health-forum/fullarticle/2796208>

**title:** In-Person Medical Conferences During the COVID-19 Pandemic

JAMA | 7th september 2022

Question When a patient receives acute hospital-level care at home (home hospital), is the use of
…The study by Silver et al7 in JAMA Network Open offers some hope for the future of relatively safe in-person meetings. The authors conducted a survey after a large hybrid medical congress in Florida in early February 2022, when transmission of the Omicron variant was most intense (ie, incidence rates >1000/100 000 population per week [>1%]), and noted no difference between in-person and virtual attendees.

…We believe hybrid conferences will become the new standard. Virtual congress technology is improving, and hybrid scientific conferences using them have been excellent. The number of participants often increases with hybrid conferences while the satisfaction and quality rating by attendees usually do not drop. A hybrid option helps junior academics, persons with a career break (eg, due to maternity or paternity leave, serious illness, care for close relatives, military service), and attendees from low- and middle-income countries. Reduced traveling will reduce the carbon footprint and energy use.8 The scientific consensus is that we can safely reestablish indoor scientific conferences, but there are many arguments to support hybrid conferences becoming the new standard.
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2795991>
Related research: [Comparison of COVID-19 Rates Among In-Person and Virtual Attendees of a National Surgical Society Meeting in the US](https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2795990)

**mental health**

**title:** COVID-19 and suicide: Evidence from Japan

the lancet regional health western pacific| 5th september 2022

Early projections painted a bleak picture of a suicide epidemic following the emergence of the COVID-19. This stemmed from widespread concerns that an unintended consequence of the health mandates designed to limit COVID-19 infections was deteriorating mental health and that this could lead to increases in suicides. This was amplified by poor media reporting1 and by early studies forecasting high suicide rates as a consequence of changing health and economic conditions. Yet the evidence to date suggests rising suicide rates have not occurred in most countries. Rather, suicides are generally either lower than what would be expected (based on pre-pandemic trends) or are no different.2 The exception to this trend is Japan where suicide rates initially declined by around 14% but then began to rise.3 Suicide rates now appear to be higher in Japan than they were pre-pandemic for many age and sex groups.
[https://www.thelancet.com/journals/lanwpc/article/PIIS2666-6065(22)00193-6/fulltext](https://www.thelancet.com/journals/lanwpc/article/PIIS2666-6065%2822%2900193-6/fulltext)

**public health & health inequalities**

**title:** Orphanhood and Caregiver Loss Among Children Based on New Global Excess COVID-19 Death Estimates

THE LANCET Pediatrics| 6th SEPTEMBER 2022

COVID-19–associated orphanhood and caregiver death has left an estimated 10.5 million children bereaved of their parents and caregivers. While billions of dollars are invested in preventing COVID-19–associated deaths, little is being done to care for children left behind. However, billions of dollars invested in supporting AIDS-orphaned children showcase successful solutions ready for replication.4 Only 2 countries, Peru and the US, have made national commitments to address COVID-19–associated orphanhood. At the 2nd Global COVID-19 Summit (May 12, 2022), President Biden emphasized the urgency of caring for the millions of children orphaned. Urgently needed pandemic responses can combine equitable vaccination with life-changing programs for bereaved children. An important limitation is that modeling estimates cannot measure actual numbers of children affected by caregiver death; future pandemic surveillance should include such children. Given the magnitude and lifelong consequences of orphanhood, integration into every national pandemic response plan of timely care for these children will help mitigate lasting adverse consequences. Evidence highlights 3 essential components: (1) prevent death of caregivers by accelerating vaccines, containment, and treatment; (2) prepare families to provide safe and nurturing alternative care; and (3) protect orphaned children through economic support, violence prevention, parenting support, and ensuring school access. Effective, caring action to protect children from immediate and long-term harms of COVID-19 is an investment in the future and a public health imperative.
<https://jamanetwork.com/journals/jamapediatrics/fullarticle/2795650>

**title:** Analysis of Gestational Weight Gain During the COVID-19 Pandemic in the US

JAMA | 9th september 2022

…These findings suggest that the COVID-19 pandemic was associated with higher GWG and higher risk of excessive GWG among US individuals with singleton pregnancies, especially those younger than 25 years, non-Hispanic Black individuals, unmarried individuals, individuals with obesity before pregnancy, and individuals using Medicaid to pay for delivery. These findings shed light on the associations of the pandemic with adverse pregnancy outcomes5 and highlight the need to address pandemic-related GWG, particularly among vulnerable populations, to minimize the public health impact. Study limitations include self-reported height and weight before pregnancy and lack of information on COVID-19 infection on birth certificates. Future studies that identify the period of maximum association of the COVID-19 pandemic with GWG may be useful.
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2796054>

We

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