

## COVID-19 Resource Desk

#94 | 2.13.2022 to 2.19.2022

Prepared by [System Library Services](#)

[Retraction Watch](#)

---

### New Research

\*note, **PREPRINTS** have not undergone formal peer review

**COVID-19 related publications by Providence caregivers – see [Digital Commons](#)**

**Retracted Articles - see also [Retraction Watch](#)**

1. **Retraction to: Meta-analysis of Randomized Trials of Ivermectin to Treat SARS-CoV-2 Infection.** Hill A., et al. *Open Forum Infectious Diseases*, 9(3) March 2022, Published: 05 February 2022 <https://doi.org/10.1093/ofid/ofac056>

On July 6, 2021, Open Forum Infectious Diseases published the article “Meta-analysis of Randomized Trials of Ivermectin to Treat SARS-CoV-2 Infection” by Hill, et al. Subsequently, we and the authors learned that one of the largest studies on which this analysis was based was withdrawn due to fraudulent data; additional problems have emerged regarding other studies included in the original paper. An editorial Expression of Concern was first published under this record as the authors revised their analysis for resubmission.

The authors submitted and published a corrected version of the analysis with commentary on assessing trial quality while creating meta-analyses, available to read in OFID: “Ivermectin for COVID-19: Addressing Potential Bias and Medical Fraud” by Hill et al., <https://doi.org/10.1093/ofid/ofab645>. The original analysis has been retracted.

### Basic Science / Virology / Pre-clinical

2. **Reproduction Numbers of SARS-CoV-2 Variants: A Systematic Review and Meta-analysis.** Du Z, et al. *Clin Infect Dis*. 2022 Feb 16:ciac137. doi: 10.1093/cid/ciac137. <https://academic.oup.com/cid/advance-article/doi/10.1093/cid/ciac137/6529536>

The COVID-19 pandemic continues to pose substantial risks to public health, worsened by the emergence of SARS-CoV-2 variants which may have a higher transmissibility and reduce vaccine effectiveness. We conducted a systematic review and meta-analysis on reproduction numbers of SARS-CoV-2 variants and provided pooled estimates for each variant.

### Clinical Syndrome

3. **Defining COVID-19 associated pulmonary aspergillosis: systematic review and meta-analysis.** Kariyawasam RM, et al. *Clin Microbiol Infect*. 2022 Feb 9:S1198-743X(22)00051-9. doi: 10.1016/j.cmi.2022.01.027. [https://www.clinicalmicrobiologyandinfection.com/article/S1198-743X\(22\)00051-9/fulltext](https://www.clinicalmicrobiologyandinfection.com/article/S1198-743X(22)00051-9/fulltext)

RESULTS: 51 studies were included. Among 3,297 COVID-19 patients in ICU cohort studies, 313 were diagnosed with CAPA (prevalence 10%, 95% confidence interval 8-13%). 277 patients had patient-level data allowing reclassification. Definitions had limited correlation with one another ( $p=0.268$  to  $0.447$ ,  $p<0.001$ ) with the exception of Koehler and Verweij ( $p=0.893$ ,  $p<0.001$ ). 33.9% of patients reported to have CAPA did not fulfill any research definitions. Patients were diagnosed after a median of 8 days (interquartile range 5-14) in ICUs. Tracheobronchitis occurred in 3% of patients examined with bronchoscopy. The mortality rate was high (59.2%). Applying CAPA research definitions did not strengthen the association between mould-active antifungals and survival. The reported prevalence of CAPA is significant, but may be exaggerated by non-standard definitions.

4. **RT-PCR negative COVID-19.** Parmar H, et al. *BMC Infect Dis.* 2022 Feb 13;22(1):149. doi: 10.1186/s12879-022-07095-x. <https://bmcinfectdis.biomedcentral.com/articles/10.1186/s12879-022-07095-x>

Findings from this study indicate a high likelihood of acute COVID-19 among RT-PCR negative with typical signs/symptoms, but a common omission of COVID-19 therapies among these patients. Clinically diagnosed COVID-19, independent of RT-PCR positivity, thus has a potential vital role in guiding treatment decisions.

### Diagnosics & Screening

5. **Comparison between mid-nasal swabs and buccal swabs for SARS-CoV-2 detection in mild COVID-19 patients.** Blanco I et al. *J Infect.* 2022 Feb 13:S0163-4453(22)00072-X. doi: 10.1016/j.jinf.2022.02.008. [https://www.journalofinfection.com/article/S0163-4453\(22\)00072-X/fulltext](https://www.journalofinfection.com/article/S0163-4453(22)00072-X/fulltext)

The use of rapid antigen diagnostics tests (Ag-RDT) has gained widespread acceptance as an alternative method for diagnosis of COVID-19 outside of health care settings. Ag-RDT offer advantages as they can be deployed by members of the general public, which require the use of self-collected specimens. Various authors have reported that saliva is a reliable specimen, alternative to nasopharyngeal and mid-nasal swabs, to detect SARS-CoV-2 infections by RT-PCR. Regarding the use of Ag-RDTs with saliva samples, previous studies have mainly reported limitations on the ability of Ag-RDT for COVID-19 diagnosis in this specimen. These limitations could be derived on the viral load distribution or sample preparation protocols, which might need to be adapted to the rheological properties of saliva. Therefore, even if several commercialized Ag-RDT tests list saliva as a possible specimen, the European Centre for Disease Prevention and Control (ECDC) currently only validates tests based on nasal, oropharyngeal and/or nasopharyngeal specimens.

### Epidemiology & Public Health

6. **Multistate Outbreak of SARS-CoV-2 B.1.1.529 (Omicron) Variant Infections Among Persons in a Social Network Attending a Convention — New York City, November 18–December 20, 2021.** Smith-Jeffcoat SE, Pomeroy MA, Sleweon S, et al. *MMWR Morb Mortal Wkly Rep* 2022;71:238–242. DOI: <http://dx.doi.org/10.15585/mmwr.mm7107a3>

Data from this investigation reinforce the importance of COVID-19 booster doses and early notification in combination with other multicomponent prevention measures to limit transmission and prevent severe illness from Omicron and other SARS-CoV-2 variants.

### Healthcare Delivery & Healthcare Workers

7. **Outcomes of COVID-19 adults managed in an outpatient versus hospital setting.** Nguyen NT, et al. *PLoS One*. 2022 Feb 14;17(2):e0263813. doi: 10.1371/journal.pone.0263813. eCollection 2022. <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0263813>

This analysis of US academic centers showed that 28.6% of COVID-19 adults who sought care at one of the hospitals reporting data to the Vizient clinical database required in-patient treatment. The rate of hospitalization in our study was lowest for the youngest age group of 18–30 years and highest for age group >75 years. Beside older age, other factors associated with outpatient management included female gender, white race, and having commercial insurance.

8. **Examining Drivers of COVID-19 Vaccine Hesitancy Among Healthcare Workers.** Swann MC, et al. *Infect Control Hosp Epidemiol*. 2022 Feb 14:1-40. [https://www.cambridge.org/core/services/aop-cambridge-core/content/view/9B66BD960A1FBC780BB4B5A8E67C642B/S0899823X22000344a.pdf/examining\\_drivers\\_of\\_covid19\\_vaccine\\_hesitancy\\_among\\_healthcare\\_workers.pdf](https://www.cambridge.org/core/services/aop-cambridge-core/content/view/9B66BD960A1FBC780BB4B5A8E67C642B/S0899823X22000344a.pdf/examining_drivers_of_covid19_vaccine_hesitancy_among_healthcare_workers.pdf)

Characteristics significantly associated with hesitancy included Black race/ethnicity, younger age, not having a high-risk household member, and prior personal experience with COVID-19 illness. Hesitancy was also significantly associated with many vaccine-related perceptions, including concerns about short-term and long-term side-effects and a belief that the vaccines are not effective. Among acceptant participants, wanting to protect others and wanting to help end the pandemic were the most common reasons for getting vaccinated. Personal physicians were cited most frequently as trusted source of information about COVID-19 among both vaccine-hesitant and vaccine-acceptant respondents.

9. **Occupational Risk Factors for SARS-CoV-2 Infection among Healthcare Personnel: A 6-month prospective analysis of the COVID-19 Prevention in Emory Healthcare Personnel (COPE) Study.**

Howard-Anderson J, et al. *Infect Control Hosp Epidemiol*. 2022 Feb 14:1-30. doi: 10.1017/ice.2021.518. <https://www.cambridge.org/core/services/aop-cambridge-core/content/view/E6EDD488774C63AFCD2DB1EE5AE87241/S0899823X21005183a.pdf/occupational-risk-factors-for-sars-cov-2-infection-among-healthcare-personnel-a-6-month-prospective-analysis-of-the-covid-19-prevention-in-emory-healthcare-personnel-cope-study.pdf>

In our study cohort of HCP working in an academic healthcare system, <10% had evidence of SARS-CoV-2 infection over six months. No specific occupational activities were identified as increasing risk for SARS-CoV-2 infection.

10. **Does Unprecedented ICU Capacity Strain, As Experienced During the COVID-19 Pandemic, Impact Patient Outcome?** Wilcox ME, et al. *Crit Care Med*. 2022 Feb 15. doi: 10.1097/CCM.0000000000005464.

[https://journals.lww.com/ccmjournal/Abstract/9000/Does\\_Unprecedented\\_ICU\\_Capacity\\_Strain,\\_As.94987.aspx](https://journals.lww.com/ccmjournal/Abstract/9000/Does_Unprecedented_ICU_Capacity_Strain,_As.94987.aspx)

For patients admitted to ICU during the pandemic, unprecedented levels of ICU capacity strain were significantly associated with higher acute hospital mortality, after accounting for differences in baseline characteristics. Further study into possible differences in the provision of care and outcome for COVID-19 and non-COVID-19 patients is needed.

## Prognosis

- 11. Predictors of life-threatening complications in relatively lower-risk patients hospitalized with COVID-19.** Gonzalez CJ, et al. *PLoS One*. 2022 Feb 15;17(2):e0263995. doi: 10.1371/journal.pone.0263995.

<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0263995>

Of 3766 adults hospitalized with COVID-19 to three hospitals in New York City from March to May 2020, 963 were relatively lower-risk based on absence of preexisting health conditions. In individuals  $\geq 55$  years old ( $n = 522$ ), 33.3% experienced a life-threatening complication, 17.4% were intubated, and 22.6% died. Among those  $< 55$  years ( $n = 441$ ), 15.0% experienced a life-threatening complication, 11.1% were intubated, and 5.9% died. In multivariable analyses among those  $\geq 55$  years, age (OR 1.03 [95%CI 1.01–1.06]), male sex (OR 1.72 [95%CI 1.14–2.64]), being publicly insured (versus commercial insurance: Medicare, OR 2.02 [95%CI 1.22–3.38], Medicaid, OR 1.87 [95%CI 1.10–3.20]) and living in areas with relatively high limited English proficiency (highest versus lowest quartile: OR 3.50 [95%CI 1.74–7.13]) predicted life-threatening complications. In those  $< 55$  years, no sociodemographic factors significantly predicted life-threatening complications. A substantial proportion of relatively lower-risk patients hospitalized with COVID-19 experienced life-threatening complications and more than 1 in 20 died. Public messaging needs to effectively convey that relatively lower-risk individuals are still at risk of serious complications.

- 12. Trends in ICU Mortality from Coronavirus Disease 2019: A Tale of Three Surges.** Emory COVID-19 Quality and Clinical Research Collaborative. *Crit Care Med*. 2022 Feb 1;50(2):245-255. doi: 10.1097/CCM.0000000000005185.

[https://journals.lww.com/ccmjournal/Fulltext/2022/02000/Trends\\_in\\_ICU\\_Mortality\\_From\\_Coronavirus\\_Disease.9.aspx](https://journals.lww.com/ccmjournal/Fulltext/2022/02000/Trends_in_ICU_Mortality_From_Coronavirus_Disease.9.aspx)

Despite increased experience and evidence-based treatments, the risk of death for patients admitted to the ICU with coronavirus disease 2019 was highest during the fall and winter of 2020. Reasons for this increased mortality are not clear.

- 13. High-Flow Nasal Cannula Failure Odds is Largely Independent of Duration of Use in COVID-19.** Gershengorn HB, et al. *Am J Respir Crit Care Med*. 2022 Feb 17. doi: 10.1164/rccm.202111-2509LE. <https://www.atsjournals.org/doi/10.1164/rccm.202111-2509LE>

We found that crude rates of HFNC failure assumed a U-shape as a function of time to-date using HFNC; specifically, only 1 in every 3.5 patients receiving HFNC for at least 6 days experienced failure while rates were higher among patients receiving any (1 in every 2 patients) and at least 14 days (1 in every 2.5 patients) of HFNC. However, after adjustment for patient characteristics, the probability of HFNC failure did not vary with the duration of previous support

with HFNC. Together these findings suggest that higher failure rates among cohorts inclusive of shortduration HFNC users likely reflects the fact that sicker patients received IMV early on. And, while HFNC failure rates eventually increase after 10 days receiving HFNC, this association is likely driven more by disease course and patient characteristics rather than any intrinsic harm associated with longer HFNC use itself. Moreover, there is no subgroup in which HFNC use for any amount of time up to 2 weeks is associated with odds of failure of >50%.

### Survivorship & Rehabilitation

14. **Clinical Outcomes Among Patients With 1-Year Survival Following Intensive Care Unit Treatment for COVID-19.** Heesakkers H, et al. *JAMA*. 2022 Feb 8;327(6):559-565. doi: 10.1001/jama.2022.0040. <https://jamanetwork.com/journals/jama/fullarticle/2788504>

In this exploratory study of patients in 11 Dutch hospitals who survived 1 year following ICU treatment for COVID-19, physical, mental, or cognitive symptoms were frequently reported.

### Therapeutics

15. **Efficacy and safety of baricitinib plus standard of care for the treatment of critically ill hospitalised adults with COVID-19 on invasive mechanical ventilation or extracorporeal membrane oxygenation: an exploratory, randomised, placebo-controlled trial.** Goldman Jason D, et al. [Providence author]. *Lancet Respir Med*. 2022 Feb 3:S2213-2600(22)00006-6. doi: 10.1016/S2213-2600(22)00006-6.

<https://www.sciencedirect.com/science/article/pii/S2213260022000066?dgcid=coauthor>

In critically ill hospitalised patients with COVID-19 who were receiving invasive mechanical ventilation or extracorporeal membrane oxygenation, treatment with baricitinib compared with placebo (in combination with standard of care, including corticosteroids) reduced mortality, which is consistent with the mortality reduction observed in less severely ill patients in the hospitalised primary COV-BARRIER study population. However, this was an exploratory trial with a relatively small sample size; therefore, further phase 3 trials are needed to confirm these findings.

16. **Casirivimab and imdevimab in patients admitted to hospital with COVID-19 (RECOVERY): a randomised, controlled, open-label, platform trial.** RECOVERY Collaborative Group. *Lancet*. 2022 Feb 12;399(10325):665-676. doi: 10.1016/S0140-6736(22)00163-5.

[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(22\)00163-5/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(22)00163-5/fulltext)

In patients admitted to hospital with COVID-19, the monoclonal antibody combination of casirivimab and imdevimab reduced 28-day mortality in patients who were seronegative (and therefore had not mounted their own humoral immune response) at baseline but not in those who were seropositive at baseline.

17. **High-titre methylene blue-treated convalescent plasma as an early treatment for outpatients with COVID-19: a randomised, placebo-controlled trial.** Alemany A et al. *Lancet Respir Med*. 2022 Feb 9:S2213-2600(21)00545-2. doi: 10.1016/S2213-2600(21)00545-2.

[https://www.thelancet.com/journals/lanres/article/PIIS2213-2600\(21\)00545-2/fulltext](https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(21)00545-2/fulltext)

Methylene blue-treated convalescent plasma did not prevent progression from mild to severe illness and did not reduce viral load in outpatients with COVID-19. Therefore, formal recommendations to support the use of convalescent plasma in outpatients with COVID-19 cannot be concluded.

18. **Oral famotidine versus placebo in non-hospitalised patients with COVID-19: a randomised, double-blind, data-intensive, phase 2 clinical trial.** Brennan CM et al. *Gut*. 2022 Feb 10:gutjnl-2022-326952. doi: 10.1136/gutjnl-2022-326952.

<https://gut.bmj.com/content/early/2022/02/09/gutjnl-2022-326952>

Famotidine was safe and well tolerated in outpatients with mild to moderate COVID-19. Famotidine led to earlier resolution of symptoms and inflammation without reducing anti-SARS-CoV-2 immunity. Additional randomised trials are required.

19. **Oral Nirmatrelvir for High-Risk, Nonhospitalized Adults with Covid-19.** EPIC-HR Investigators. *N Engl J Med*. 2022 Feb 16. doi: 10.1056/NEJMoa2118542.

<https://www.nejm.org/doi/full/10.1056/NEJMoa2118542>

Treatment of symptomatic Covid-19 with nirmatrelvir plus ritonavir resulted in a risk of progression to severe Covid-19 that was 89% lower than the risk with placebo, without evident safety concerns. (Supported by Pfizer; ClinicalTrials.gov number, NCT04960202.).

20. **Efficacy of Ivermectin Treatment on Disease Progression Among Adults with Mild to Moderate COVID-19 and Comorbidities: The I-TECH Randomized Clinical Trial.** Lim SCL, et al. *JAMA Intern Med*. February 18, 2022. doi:10.1001/jamainternmed.2022.0189

<https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2789362>

In this randomized clinical trial of high-risk patients with mild to moderate COVID-19, ivermectin treatment during early illness did not prevent progression to severe disease. The study findings do not support the use of ivermectin for patients with COVID-19.

### **Transmission / Infection Control**

21. **Healthcare Design to Improve Safe Doffing of Personal Protective Equipment for Care of Patients with COVID-19.** Machry H, et al. *Infect Control Hosp Epidemiol*. 2022 Feb 14:1-22. doi: 10.1017/ice.2021.526.

<https://www.cambridge.org/core/journals/infection-control-and-hospital-epidemiology/article/healthcare-design-to-improve-safe-doffing-of-personal-protective-equipment-for-care-of-patients-with-covid19/0FC9D1A3F498A52CF29D0B7F1C0F3CD7>

Our study emphasizes how the built environment can be relevant during PPE doffing in the context of COVID-19 care in inpatient settings, where the design of doffing spaces around patient room doors may help reduce risks of cross-contamination and occupational stress. To increase the strength of our findings, future research should operationalize and test our suggested design guidelines and strategies using an interdisciplinary approach that focuses on measuring actual improvements in PPE doffing, especially in terms of perceived HCW workload.



## Vaccines / Immunology

22. **Association of Homologous and Heterologous Vaccine Boosters With COVID-19 Incidence and Severity in Singapore.** Tan SHX, et al. *JAMA*. 2022 Feb 11. doi: 10.1001/jama.2022.1922.  
<https://jamanetwork.com/journals/jama/fullarticle/2789151>

Reports of waning antibody levels and breakthrough infections among vaccinated individuals<sup>1</sup> have prompted the recommendation for vaccine boosters to prevent SARS-CoV-2 infections. Despite more than 80% of the population in Singapore having received 2 doses of a COVID-19 vaccine, cases surged in September 2021 with the relaxation of social distancing and quarantine measures. In response, adults 60 years and older who completed their primary vaccination series at least 6 months prior were invited to receive a booster injection and given a choice of either 30- $\mu$ g BNT162b2 (Pfizer-BioNTech) or 50- $\mu$ g mRNA-1273 (Moderna). We estimated SARS-CoV-2 infections and disease severity with the receipt of a booster and by type of booster.

23. **The Incidence of SARS-CoV-2 Reinfection in Persons with Naturally Acquired Immunity with and Without Subsequent Receipt of a Single Dose of BNT162b2 Vaccine: A Retrospective Cohort Study.** Gazit S, et al. *Ann Intern Med*. 2022 Feb 15. doi: 10.7326/M21-4130.  
<https://www.acpjournals.org/doi/10.7326/M21-4130>

Persons previously infected with SARS-CoV-2 gained additional protection against reinfection and COVID-19 from a subsequent single dose of the BNT162b2 vaccine. Nonetheless, even without a subsequent vaccination, reinfection appeared relatively rare.

24. **Effectiveness of the BNT162b2 Vaccine after Recovery from Covid-19.** Hammerman A, et al. *N Engl J Med*. 2022 Feb 16. doi: 10.1056/NEJMoa2119497.  
<https://www.nejm.org/doi/full/10.1056/NEJMoa2119497>

A total of 149,032 patients who had recovered from SARS-CoV-2 infection met the eligibility criteria. Of these patients, 83,356 (56%) received subsequent vaccination during the 270-day study period. Reinfection occurred in 354 of the vaccinated patients (2.46 cases per 100,000 persons per day) and in 2168 of 65,676 unvaccinated patients (10.21 cases per 100,000 persons per day). Vaccine effectiveness was estimated at 82% (95% confidence interval [CI], 80 to 84) among patients who were 16 to 64 years of age and 60% (95% CI, 36 to 76) among those 65 years of age or older. No significant difference in vaccine effectiveness was found for one dose as compared with two doses.

CONCLUSIONS: Among patients who had recovered from Covid-19, the receipt of at least one dose of the BNT162b2 vaccine was associated with a significantly lower risk of recurrent infection.

25. **Protection against SARS-CoV-2 after Covid-19 Vaccination and Previous Infection.** Hall V et al. *N Engl J Med*. 2022 Feb 16. doi: 10.1056/NEJMoa2118691.  
<https://www.nejm.org/doi/full/10.1056/NEJMoa2118691>

Two doses of BNT162b2 vaccine were associated with high short-term protection against SARS-CoV-2 infection; this protection waned considerably after 6 months. Infection-acquired immunity boosted with vaccination remained high more than 1 year after infection.

## Women & Children

- 26. Effectiveness of Maternal Vaccination with mRNA COVID-19 Vaccine During Pregnancy Against COVID-19-Associated Hospitalization in Infants Aged <6 Months - 17 States, July 2021-January 2022.** Overcoming COVID-19 Investigators; Overcoming COVID-19 Network. *MMWR Morb Mortal Wkly Rep.* 2022 Feb 18;71(7):264-270. doi: 10.15585/mmwr.mm7107e3.  
<https://doi.org/10.15585/mmwr.mm7107e3>

The Overcoming COVID-19 network conducted a test-negative, case-control study at 20 pediatric hospitals in 17 states during July 1, 2021-January 17, 2022, to assess effectiveness of maternal completion of a 2-dose primary mRNA COVID-19 vaccination series during pregnancy against COVID-19 hospitalization in infants. Among 379 hospitalized infants aged <6 months (176 with COVID-19 [case-infants] and 203 without COVID-19 [control-infants]), the median age was 2 months, 21% had at least one underlying medical condition, and 22% of case- and control-infants were born premature (<37 weeks gestation). Effectiveness of maternal vaccination during pregnancy against COVID-19 hospitalization in infants aged <6 months was 61% (95% CI = 31%-78%). Completion of a 2-dose mRNA COVID-19 vaccination series during pregnancy might help prevent COVID-19 hospitalization among infants aged <6 months.

- 27. Coronavirus Disease 2019 (COVID-19) Disease Severity: Pregnant vs Nonpregnant Women at 82 Facilities.** Hsu AL, et al. *Clin Infect Dis.* 2022 Feb 11;74(3):467-471. doi: 10.1093/cid/ciab441.  
<https://academic.oup.com/cid/article/74/3/467/6430942>

We did not find an increased risk of severe COVID-19 or mortality in pregnancy. Hospitalization does not necessarily indicate severe COVID-19 in pregnancy, as half of pregnant patients with COVID-19 were admitted for L&D encounters in this study.

- 28. Knowledge, Attitude and Practices of Pregnant Women Related to COVID-19 Infection: A Cross-sectional Survey in Seven Countries from the Global Network for Women's and Children's Health.** Naqvi F, et al. *BJOG.* 2022 Feb 14. doi: 10.1111/1471-0528.17122.  
<https://obgyn.onlinelibrary.wiley.com/doi/abs/10.1111/1471-0528.17122>

We found a decrease in planned antenatal and delivery care use due to COVID-19 concerns. The clinical implications of potential decreases in care are unclear, but decline in essential healthcare utilization during pregnancy and delivery could pose challenges for maternal and newborn health. More research is needed to address the impact of COVID-19 on routine pregnancy and delivery care.

- 29. Characteristics, Outcomes, and Severity Risk Factors Associated With SARS-CoV-2 Infection Among Children in the US National COVID Cohort Collaborative.** Martin B, et al. *JAMA Netw Open.* 2022 Feb 1;5(2):e2143151. doi: 10.1001/jamanetworkopen.2021.43151.  
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2788844>

In this cohort study of US children with SARS-CoV-2, there were observed differences in demographic characteristics, preexisting comorbidities, and initial vital sign and laboratory values between severity subgroups. Taken together, these results suggest that early identification of children likely to progress to severe disease could be achieved using readily available data elements from the day of admission. Further work is needed to translate this knowledge into improved outcomes.



30. **Hospitalizations of Children and Adolescents with Laboratory-Confirmed COVID-19 - COVID-NET, 14 States, July 2021-January 2022.** COVID-NET Surveillance Team. *MMWR Morb Mortal Wkly Rep.* 2022 Feb 18;71(7):271-278. doi: 10.15585/mmwr.mm7107e4.

<https://doi.org/10.15585/mmwr.mm7107e4>

The Omicron variant peak (7.1 per 100,000) was four times that of the Delta variant peak (1.8), with the largest increase observed among children aged 0-4 years. During December 2021, the monthly hospitalization rate among unvaccinated adolescents aged 12-17 years (23.5) was six times that among fully vaccinated adolescents (3.8). Strategies to prevent COVID-19 among children and adolescents, including vaccination of eligible persons, are critical.

---

## GUIDELINES & CONSENSUS STATEMENTS

[COVID-19 vaccination in patients receiving allergen immunotherapy \(AIT\) or biologicals - EAACI recommendations.](#) Jutel M et al. *Allergy.* 2022 Feb 11. doi: 10.1111/all.15252.

[Thromboprophylaxis in Patients with COVID-19. A Brief Update to the CHEST Guideline and Expert Panel Report.](#) *Chest.* 2022 Feb 12:S0012-3692(22)00250-1. doi: 10.1016/j.chest.2022.02.006.

UK Health Security Agency: [The effectiveness of vaccination against long COVID: A rapid evidence briefing](#)

---

## Commentary

[Pandemics disable people - the history lesson that policymakers ignore.](#) Spinney L. *Nature.* 2022 Feb;602(7897):383-385. doi: 10.1038/d41586-022-00414-x.

---

If you would like to receive a **customized COVID-19 Topic Alert** related to your specialty or area of interest, would like a **literature search** conducted, or have difficulty **accessing** any of the above articles please contact us at [librarian@providence.org](mailto:librarian@providence.org)

Find previous weeks [here](#).