

COVID-19 Resource Desk

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New Research

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

Clinical Syndrome

- 1. Acute and delayed psychiatric sequelae among patients hospitalised with COVID-19: a cohort study using LIFE study data.** Murata F, Maeda M, Ishiguro C, Fukuda H. *Gen Psychiatr.* 2022 Jun 20;35(3):e100802. doi: 10.1136/gpsych-2022-100802. <https://doi.org/10.1136/gpsych-2022-100802>

The study population with acute psychiatric sequela consisted of 662 patients with COVID-19, 644 patients with influenza, and 7369 patients with RTI who could be followed for 3 months; the study population with delayed psychiatric sequelae consisted of 371 patients with COVID-19, 546 patients with influenza, and 5397 patients with RTI who could be followed for 6 months. In the analysis of acute psychiatric sequelae, COVID-19 had significantly higher odds of mood/anxiety/psychotic disorder, psychotic disorder, and insomnia than influenza, and significantly higher odds of insomnia and significantly lower odds of anxiety disorder than other RTI. In the analysis of delayed psychiatric sequelae, COVID-19 had significantly higher odds of psychotic disorder than influenza, but significantly lower odds of anxiety disorder than other RTI. COVID-19 was generally associated with an increased risk of psychiatric sequelae occurring within 3 months after infection, but had a lower risk of new psychiatric sequelae developing 4-6 months after infection.

Epidemiology & Public Health

- 2. Admissions to a large tertiary care hospital and Omicron BA.1 and BA.2 SARS-CoV-2 PCR positivity: primary, contributing, or incidental COVID-19.** Voor AF et al. *Int J Infect Dis.* 2022 Jul 13:S1201-9712(22)00424-6. doi: 10.1016/j.ijid.2022.07.030.

[https://www.ijidonline.com/article/S1201-9712\(22\)00424-6/fulltext](https://www.ijidonline.com/article/S1201-9712(22)00424-6/fulltext)

We classified 172 COVID-19 Omicron patient admissions; including 151 adult and 21 pediatric patients. Of the adult patients, 45% were primary COVID-19 cases, 21% were admission-contributing, 31% were incidental, and 3% were undetermined. Of the pediatric patients, 19% were primary COVID-19 cases, 29% were admission-contributing, 38% were incidental, and 14% were undetermined. In the evolving landscape of COVID-19, numbers of hospitalized COVID-19 patients should be interpreted with caution. The different patient categories should be taken into account in public health policy decision-making and when informing the general public.

Healthcare Delivery & Healthcare Workers

- 3. Timing of a Major Operative Intervention after a Positive COVID-19 Test Affects Postoperative Mortality. Results from a Nationwide, Procedure Matched Analysis.** Kougiyas P, et al *Ann Surg*. 2022 Jul 15. doi: 10.1097/SLA.0000000000005552.
https://journals.lww.com/annalsofsurgery/Abstract/9900/Timing_of_a_Major_Operative_Intervention_after_a.111.aspx

Patients undergoing major operations within 8 weeks after a positive test have substantially higher postoperative 90-day mortality than CPT-matched controls without a COVID-19 diagnosis, regardless of presenting symptoms.

- 4. Childcare Stress, Burnout, and Intent to Reduce Hours or Leave the Job During the COVID-19 Pandemic Among US Health Care Workers.** Harry EM, et al. *JAMA Netw Open*. 2022 Jul 1;5(7):e2221776. doi: 10.1001/jamanetworkopen.2022.21776.
<https://doi.org/10.1001/jamanetworkopen.2022.21776>

In 208 organizations, 58 408 HCWs (15 766 physicians [26.9%], 11 409 nurses [19.5%], 39 218 women [67.1%], and 33 817 White participants [57.9%]) responded with a median organizational response rate of 32%. CCS was present in 21% (12 197 respondents) of HCWs. CCS was more frequent among racial and ethnic minority individuals and those not identifying race or ethnicity vs White respondents (5028 respondents [25.2%] vs 6356 respondents [18.8%] and among women vs men (8281 respondents [21.1%] vs 2573 respondents [17.9%]). Those with CCS had 115% greater odds of anxiety or depression, and 80% greater odds of burnout (OR, 1.80; 95% CI, 1.70-1.90; P < .001) vs individuals without CCS. High CCS was associated with 91% greater odds of ITR and 28% greater odds of ITL. In this survey study, CCS was disproportionately described across different subgroups of HCWs and was associated with anxiety, depression, burnout, ITR, and ITL. Addressing CCS may improve HCWs' quality of life and HCW retention and work participation.

Survivorship & Rehabilitation

- 5. Risk of Cardiovascular Events After COVID-19.** Tereshchenko LG et al. *Am J Cardiol*. 2022 Jul 14:S0002-9149(22)00655-5. doi: 10.1016/j.amjcard.2022.06.023.
[https://www.ajconline.org/article/S0002-9149\(22\)00655-5/fulltext](https://www.ajconline.org/article/S0002-9149(22)00655-5/fulltext)

We conducted a retrospective double cohort study of patients with either symptomatic or asymptomatic SARS-CoV-2 infection (COVID-19+ cohort) and its documented absence (COVID-19- cohort). The study population included 1,355 patients (mean age 48.7 ± 20.5 years; 770 women [57%], 977 White non-Hispanic [72%]; 1,072 insured [79%]; 563 with CV disease history [42%]). During a median 6 months at risk, the primary composite outcome was observed in 38 of 319 patients who were COVID-19+ (12%) and 65 of 1,036 patients who were COVID-19- (6%). In the Cox regression, adjusted for demographics, health insurance, and reason for COVID-19 testing, SARS-CoV-2 infection was associated with the risk for primary composite outcome (hazard ratio 1.71, 95% confidence interval 1.06 to 2.78, p = 0.029). Inverse probability-weighted estimation, conditioned for 31 covariates, showed that for every patient who was COVID-19+, the average time to all-cause death was 65.5 days less than when all these patients were COVID-19-: average treatment effect on the treated - 65.5 (95% confidence interval -125.4 to -5.61) days, p = 0.032. In conclusion, either symptomatic or

asymptomatic SARS-CoV-2 infection is associated with an increased risk for late CV outcomes and has a causal effect on all-cause mortality in a late post-COVID-19 period.

Therapeutics

- 6. Paxlovid in patients who are immunocompromised and hospitalised with SARS-CoV-2 infection.** Sun F, et al. *Lancet Infect Dis*. 2022 Jul 14:S1473-3099(22)00430-3. doi: 10.1016/S1473-3099(22)00430-3. [https://www.thelancet.com/journals/laninf/article/PIIS1473-3099\(22\)00430-3/fulltext](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(22)00430-3/fulltext)

A paxlovid registry study was done in Shanghai Renji Hospital South Campus, a COVID referral centre from April 7, 2022, to May 7, 2022, with institutional review board approval and informed consent obtained from all participants. As for the primary endpoint of the study, viral elimination was defined as both negative for ORF1ab and N genes (Ct value ≥ 35 by real-time PCR) on 2 consecutive days, according to local guidelines.⁴ Viral elimination beyond 10 days since diagnosis of SARS-CoV-2 infection established by PCR was defined as a prolonged elimination.

- 7. Effectiveness of Casirivimab-Imdevimab and Sotrovimab During a SARS-CoV-2 Delta Variant Surge: A Cohort Study and Randomized Comparative Effectiveness Trial.** Huang DT et al. *JAMA Netw Open*. 2022 Jul 1;5(7):e2220957. doi: 10.1001/jamanetworkopen.2022.20957. <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2794210>

In this propensity score-matched cohort study and randomized comparative effectiveness trial, the effectiveness of casirivimab-imdevimab and sotrovimab against the Delta variant was similar, although the prespecified criteria for statistical inferiority or equivalence were not met. Both mAb treatments were associated with a reduced risk of hospitalization or death in nonhospitalized patients with mild to moderate COVID-19 caused by the Delta variant.

TRIAL REGISTRATION: ClinicalTrials.gov Identifier: NCT04790786.

Vaccines / Immunology

- 8. Covid-19 Vaccination and the Timing of Surgery Following Covid-19 Infection.** Le ST et al. *Ann Surg*. 2022 Jul 15. doi: 10.1097/SLA.0000000000005597. https://journals.lww.com/annalsurgery/Abstract/9900/Covid_19_Vaccination_and_the_Timing_of_Surgery.129.aspx

Surgery shortly following Covid-19 infection was not associated with higher risks among fully vaccinated patients or among patients who underwent surgery without general anesthesia. Further research will be valuable to understand additional factors that modify perioperative risks associated with prior Covid-19 infection.

- 9. Safety Monitoring of COVID-19 mRNA Vaccine First Booster Doses Among Persons Aged ≥ 12 Years with Presumed Immunocompromise Status - United States, January 12, 2022-March 28, 2022.** Hause AM, et al. *MMWR Morb Mortal Wkly Rep*. 2022 Jul 15;71(28):899-903. doi: 10.15585/mmwr.mm7128a3. https://www.cdc.gov/mmwr/volumes/71/wr/mm7128a3.htm?s_cid=mm7128a3_w

The Advisory Committee on Immunization Practices (ACIP) recommends that immunocompromised persons aged ≥ 12 years complete a 3-dose primary mRNA COVID-19 vaccination series followed by a first booster dose (dose 4) ≥ 3 months after dose 3 and a second booster dose (dose 5) ≥ 4 months after dose. A fourth mRNA dose reported to v-safe or VAERS during January 12, 2022-March 28, 2022, was presumed to be an mRNA COVID-19 vaccine booster dose administered to an immunocompromised person because no other population was authorized to receive a fourth dose during that period. In the United States, during January 12, 2022-March 28, 2022, approximately 518,113 persons aged ≥ 12 years received a fourth dose. Among 4,015 v-safe registrants who received a fourth dose, local and systemic reactions were less frequently reported than were those following dose 3 of their primary series. VAERS received 145 reports after fourth doses; 128 (88.3%) were nonserious and 17 (11.7%) were serious. Health care providers, immunocompromised persons, and parents of immunocompromised children should be aware that local and systemic reactions are expected after a first booster mRNA COVID-19 vaccine dose, serious adverse events are rare, and safety findings were consistent with those previously described among non-immunocompromised persons.

10. Reactogenicity of Simultaneous COVID-19 mRNA Booster and Influenza Vaccination in the US.

Hause AM, et al. *JAMA Netw Open*. 2022 Jul 1;5(7):e2222241. doi:

10.1001/jamanetworkopen.2022.22241.

<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2794318>

In this study, compared with administration of COVID-19 mRNA booster vaccines alone, simultaneous administration of COVID-19 mRNA booster and seasonal influenza vaccines was associated with significant increases in reports of systemic reactions during days 0 to 7 following vaccination. These results may help better characterize the outcomes associated with simultaneously administered COVID-19 booster and influenza vaccines in the US population.

Whole Person Care

11. Who is seeking help for psychological distress associated with the COVID-19 pandemic? Characterization of risk factors in 1269 participants accessing low-threshold psychological help.

Hilbert K, et al. *PLoS One*. 2022 Jul 18;17(7):e0271468. doi:

10.1371/journal.pone.0271468. eCollection 2022.

<https://doi.org/10.1371/journal.pone.0271468>

Seeking for help for COVID-19 related psychological distress was characterized by female gender, younger age, and better education compared to the general population. The majority reported mental health problems already before the pandemic. 74.5% of this help-seeking sample also exceeded clinical thresholds for depression, anxiety, or somatization. Higher individual symptom levels were associated with higher overall levels of pandemic stress, younger age, and pre-existing mental health problems, but were buffered by functional emotion regulation strategies. Results suggest a considerable increase in demand for mental-healthcare in the pandemic aftermath. Comparisons with the general population indicate diverging patterns in help-seeking behavior: while some individuals seek help themselves, others should be addressed directly. Individuals that are young, have pre-existing mental health problems and experience a high level of pandemic stress are particularly at-risk for considerable symptom load.

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