

COVID-19 Digest Issue 72

February 17, 2022

CLINICAL PEARL

Long-term cardiovascular outcomes of COVID-19: The cardiovascular complications of acute COVID-19 are now well-known, but the post-acute cardiovascular manifestations of COVID-19 have not yet been comprehensively characterized. A team of researchers from St Louis, MO, used national healthcare databases from the US Department of Veterans Affairs to build a cohort of 153,760 individuals with COVID-19, as well as two sets of control cohorts with 5,637,647 contemporary controls and 5,859,411 historical controls, to estimate risks and 1-year burdens of a set of pre-specified incident cardiovascular outcomes. They showed that, beyond the first 30 days after infection, individuals with COVID-19 are at increased risk of cardiovascular disease including cerebrovascular disorders, dysrhythmias, ischemic and non-ischemic heart disease, pericarditis, myocarditis, heart failure and thromboembolic disease. These risks and burdens were evident even among individuals who were not hospitalized during the acute phase of the infection and increased in a graded fashion according to the care setting during the acute phase (non-hospitalized, hospitalized and admitted to intensive care).

PUBLIC HEALTH UPDATES

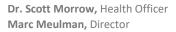
- FDA Postpones Advisory Committee Meeting to Discuss Request for Authorization of Pfizer-BioNTech COVID-19 Vaccine for Children 6 Months Through 4 Years of Age
- <u>FDA Authorizes New Monoclonal Antibody for Treatment of COVID-19 that Retains Activity Against Omicron</u> <u>Variant</u>
- FDA Takes Key Action by Approving Second COVID-19 Vaccine
- FDA Takes Actions to Expand Use of Treatment for Outpatients with Mild-to-Moderate COVID-19
- WHO
 - ACT-Accelerator calls for fair share-based financing of US\$ 23 billion to end pandemic as global emergency in 2022
 - o <u>Tonnes of COVID-19 health care waste expose urgent need to improve waste management systems</u>
 - Africa on track to control COVID-19 pandemic in 2022
- European Centre for Disease Prevention and Control <u>COVID-19 vaccines for adolescents offer a very high</u> level of protection against infection, symptomatic disease, and severe disease

GUIDANCE/GUIDELINES

- CDC Interim Clinical Considerations for Use of COVID-19 Vaccines Currently Approved or Authorized in the United States
- CDPH Guidance for the Use of Face Masks

RESOURCES

- WHO Weekly epidemiological update on COVID-19 8 February 2022
- CDC
 - o <u>COCA Call: What Clinicians Need to Know About Multisystem Inflammatory Syndrome in Children</u>
 - o <u>SARS-CoV-2 RNA Levels in Wastewater in the United States</u>
- CDPH
 - o <u>COVID-19 Wastewater Surveillance</u>
 - o <u>COVID-19 Treatments</u>



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- CDC/IDSA COVID-19 Clinician Call: <u>Outpatient Therapeutics: Addressing Operational Barriers to Delivery &</u> <u>Access; Omicron Update</u>
- IDSA
 - o <u>COVID-19 Health Disparities</u>
 - o Black History Month The Impact of the COVID-19 Pandemic and Utilizing Trusted Messengers
 - o <u>Combating COVID-19 Misinformation</u>
- Center for Infectious Disease Research and Policy (CIDRAP) Osterholm Update:
 - o Episode 89: Understanding immunity
 - Episode 90: A Pandemic of Lost Trust
- Kaiser Family Foundation <u>KFF COVID-19 Vaccine Monitor: January 2022 Parents And Kids Update</u>
- UK Health Security Agency <u>SARS-CoV-2 variants of concern and variants under investigation in England</u> <u>Technical briefing 36</u>

ACADEMIC/RESEARCH PAPERS

- New England Journal of Medicine
 - o SARS-CoV-2 Omicron Variant Neutralization after mRNA-1273 Booster Vaccination
 - o <u>Effectiveness of Homologous or Heterologous Covid-19 Boosters in Veterans</u>
 - o <u>Protection against the Omicron Variant from Previous SARS-CoV-2 Infection</u>
- medRxiv
 - Transmission of SARS-CoV-2 Omicron VOC subvariants BA.1 and BA.2: Evidence from Danish Households
- bioRxiv
 - <u>Reduced interferon antagonism but similar drug sensitivity in Omicron variant compared to Delta</u> <u>variant SARS-CoV-2 isolates</u>
 - o <u>Detection of SARS-CoV-2 Omicron variant (B.1.1.529) infection of white-tailed deer</u>
 - <u>Unadjuvanted intranasal spike vaccine booster elicits robust protective mucosal immunity against</u> <u>sarbecoviruses</u>
- Nature
 - o <u>T cell responses to SARS-CoV-2 spike cross-recognize Omicron</u>
 - Safety, tolerability and viral kinetics during SARS-CoV-2 human challenge
 - o Vaccines Elicit Highly Conserved Cellular Immunity to SARS-CoV-2 Omicron
 - <u>Self-reported COVID-19 vaccine hesitancy and uptake among participants from different racial and</u> <u>ethnic groups in the United States and United Kingdom</u>
 - <u>A population-based cohort study of obesity, ethnicity and COVID-19 mortality in 12.6 million adults in</u> <u>England</u>
- The Lancet
 - o <u>Omicron neutralising antibodies after COVID-19 vaccination in haemodialysis patients</u>
 - Transmission of SARS-CoV-2 (Variant Delta) from Pet Hamsters to Humans and Onward Human Propagation of the Adapted Strain: A Case Study
- JAMA
 - <u>Durability of Anti-Spike Antibodies in Infants After Maternal COVID-19 Vaccination or Natural</u> <u>Infection</u>
 - <u>Characteristics, Outcomes, and Severity Risk Factors Associated With SARS-CoV-2 Infection Among</u>
 <u>Children in the US National COVID Cohort Collaborative</u>





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- Association of BNT162b2 COVID-19 Vaccination During Pregnancy With Neonatal and Early Infant Outcomes
- Association of SARS-CoV-2 Infection With Serious Maternal Morbidity and Mortality From Obstetric Complications
- o Analysis of Vaccination Rates and New COVID-19 Infections by US County, July-August 2021
- Evaluating the Findings of the IMPACT-C Randomized Clinical Trial to Improve COVID-19 Vaccine Coverage in Skilled Nursing Facilities
- Association of Homologous and Heterologous Vaccine Boosters With COVID-19 Incidence and Severity in Singapore
- Assessing How Consumers Interpret and Act on Results From At-Home COVID-19 Self-test Kits A Randomized Clinical Trial
- <u>Prevalence of Select New Symptoms and Conditions Among Persons Aged Younger Than 20 Years</u> and 20 Years or Older at 31 to 150 Days After Testing Positive or Negative for SARS-CoV-2
- <u>Comparison of SARS-CoV-2 Test Positivity in NCAA Division I Student Athletes vs Nonathletes at 12</u> <u>Institutions</u>
- o College Athletic Programs Thwart the Spread of SARS-CoV-2 During the COVID-19 Pandemic
- Disruptions in Care for Medicare Beneficiaries With Severe Mental Illness During the COVID-19 Pandemic
- <u>Trends in and Factors Associated With Out-of-Pocket Spending for COVID-19 Hospitalizations From</u> <u>March 2020 to March 2021</u>
- Emerging Infectious Diseases
 - o Detection of SARS-CoV-2 in Neonatal Autopsy Tissues and Placenta
 - o <u>Multisystem Inflammatory Syndrome in Adult after First Dose of mRNA Vaccine</u>
 - o <u>Community Transmission of SARS-CoV-2 Omicron Variant, South Korea, 2021</u>
 - o Serial Intervals and Household Transmission of SARS-CoV-2 Omicron Variant, South Korea, 2021
 - o Mask Effectiveness for Preventing Secondary Cases of COVID-19, Johnson County, Iowa, USA
- Clinical Infectious Diseases
 - Rapid control of hospital-based SARS-CoV-2 Omicron clusters through daily testing and universal use of N95 respirators
 - Predictors of SARS-CoV-2 infection following high-risk exposure
- BMJ
 - Risk of persistent and new clinical sequelae among adults aged 65 years and older during the postacute phase of SARS-CoV-2 infection: retrospective cohort study
 - Association between pharmaceutical modulation of oestrogen in postmenopausal women in Sweden and death due to COVID-19: a cohort study
- Matter
 - o Oral mRNA delivery using capsule-mediated gastrointestinal tissue injections
- PNAS
 - <u>Self-reported COVID-19 infection and implications for mental health and food insecurity among</u> <u>American college students</u>
- Journal of Clinical Investigation
 - <u>Disulfiram inhibits neutrophil extracellular trap formation protecting rodents from acute lung injury</u> and SARS-CoV-2 infection





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- Radiology
 - o Imaging and Clinical Features of COVID-19 Breakthrough Infections: A Multicenter Study
 - Canadian Medical Association Journal
 - Outcomes in patients with and without disability admitted to hospital with COVID-19: a retrospective cohort study

MMWR

- 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
- <u>Hospitalizations of Children and Adolescents with Laboratory-Confirmed COVID-19 COVID-NET, 14 States,</u> July 2021–January 2022
- Waning 2-Dose and 3-Dose Effectiveness of mRNA Vaccines Against COVID-19–Associated Emergency Department and Urgent Care Encounters and Hospitalizations Among Adults During Periods of Delta and Omicron Variant Predominance — VISION Network, 10 States, August 2021–January 2022
- <u>Safety Monitoring of COVID-19 Vaccine Booster Doses Among Adults United States, September 22, 2021</u> <u>February 6, 2022</u>
- <u>Genomic Surveillance for SARS-CoV-2 Variants: Predominance of the Delta (B.1.617.2) and Omicron</u> (B.1.1.529) Variants — United States, June 2021–January 2022
- <u>Effectiveness of Face Mask or Respirator Use in Indoor Public Settings for Prevention of SARS-CoV-2 Infection</u> <u>— California, February–December 2021</u>
- <u>Clinical Characteristics and Outcomes Among Adults Hospitalized with Laboratory-Confirmed SARS-CoV-2</u> Infection During Periods of B.1.617.2 (Delta) and B.1.1.529 (Omicron) Variant Predominance — One Hospital, California, July 15–September 23, 2021, and December 21, 2021–January 27, 2022
- Notes from the Field: COVID-19 Vaccination Among Persons Living with Diagnosed HIV Infection New York, October 2021
- <u>COVID-19 Vaccination Coverage and Vaccine Confidence by Sexual Orientation and Gender Identity United</u> <u>States, August 29–October 30, 2021</u>
- <u>SARS-CoV-2</u> Infection and Hospitalization Among Adults Aged ≥18 Years, by Vaccination Status, Before and During SARS-CoV-2 B.1.1.529 (Omicron) Variant Predominance — Los Angeles County, California, November 7, 2021–January 8, 2022

HOT OFF THE (LAY) PRESS

- New York Times
 - In a reversal, the F.D.A. will wait for more data on Pfizer's vaccine before deciding whether to authorize it for children under 5
 - <u>Covid booster shots lose their potency after about four months, the C.D.C. said, raising the possibility</u> that some people may need a fourth dose.
 - o F.D.A. Clears Covid Drug From Eli Lilly That Shows Promise Against Omicron
 - J.&J. quietly paused Covid vaccine production at a key factory, raising concern over whether it can meet commitments to developing nations.
 - o <u>The Supreme Court rejects a bid by New York teachers to block a city vaccine mandate.</u>
 - <u>New Jersey's governor, a Democrat, is expected to end mask mandates in schools for</u> <u>students and teachers, in a "huge step toward normalcy."</u>
 - o U.S. COVID death toll surpasses 900,000 as Omicron spread slows





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- o <u>Medicare will provide free at-home virus tests for pick up, the Biden administration says.</u>
- o Covid-19 Commission Modeled on 9/11 Inquiry Draws Bipartisan Backing
- o <u>The F.D.A. grants Moderna's vaccine full approval</u>
- The Washington Post
 - o California will preserve its school mask mandate as indoor rules for businesses expire
 - o Biden plan to ship 500 million coronavirus test kits transforms Postal Service into relief agency
 - o OSHA pursues new safety rule for health-care facilities after previous efforts faltered, expired
 - o <u>Covid increases long-term heart risks, study of U.S. veterans finds</u>
- Bloomberg
 - o Kids' Covid Vaccinations Plummet as U.S. Considers Shots for Younger Children
- CBS News
 - o U.S. efforts on pandemic, economy: Things are a bit better, but not yet good CBS News poll
- The Hill
 - o FBI searches headquarters of embattled COVID testing lab
- Reuters
 - o EU wants pandemic treaty to ban wildlife markets, reward virus detection
- AXIOS
 - o <u>Health workers weighing their options</u>
 - o Axios-Ipsos poll: America learns to live with COVID
- University of Michigan National Poll on Healthy Aging
 - o <u>Pandemic disruptions mean many older adults still haven't gotten needed care</u>
 - The New Yorker
 - o Beyond the Booster Shot
- AP News
 - o Governors in 4 states plan for end to school mask mandates
 - o Mandate to vaccinate New Orleans schoolchildren kicking in
- NPR
 - o Federal court blocks Biden's vaccine mandate for federal workers
- Nature
 - o <u>Ten billion COVID vaccinations: world hits new milestone</u>
- Kaiser Health News
 - o At Nursing Homes, Long Waits for Results Render Covid Tests 'Useless'
- Live Science
 - o Will we need more COVID-19 boosters to end the pandemic?
- Science Alert
 - o This Cheap, Effective, Patent-Free COVID Vaccine Could Be a Global Game-Changer
- Pfizer Press Releases
 - <u>Pfizer and BioNTech Provide Update on Rolling Submission for Emergency Use Authorization of Their</u> <u>COVID-19 Vaccine in Children 6 Months Through 4 Years of Age</u>
- Novavax Press Releases
 - o Novavax Submits Request to the U.S. FDA for Emergency Use Authorization of COVID-19 Vaccine
- Popular Science
 - o COVID-19 is overcrowding cemeteries and causing heavy metal pollution





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- EurekaAlert!
 - Pilot study suggests long COVID could be linked to the effects of SARS-CoV-2 on the vagus nerve
 - o <u>Enhanced external counterpulsation offers potential treatment option for long COVID patients</u>
- University of Oxford News
 - <u>Research collaboration launched to focus on repurposing existing anti-viral therapies to treat COVID-</u>
 <u>19</u>
- Los Angeles Times
 - o California COVID-19 death toll tops 80,000 in 2 years
 - o L.A. County unveils plans to drop some mask rules once COVID conditions improve
- San Francisco Chronicle
 - o Experts chart Bay Area life after COVID and when it might arrive
 - o <u>Can you get long COVID if you're vaccinated? Early studies offer clues</u>
 - Why are so few people in the Bay Area getting COVID booster shots?
 - o It's 2 years since COVID came to the Bay Area. Where are we now?

EPIDEMIOLOGY UPDATES

- CDC COVID Data Tracker
 - o <u>COVID-19 Vaccinations in the United States</u> new data!
- Johns Hopkins COVID-19 in the USA daily summary of key data on COVID-19 in the U.S.
- American Academy of Pediatrics <u>Children and COVID-19</u>: <u>State Level Data Report</u>
- California COVID-19 by the numbers are available on the <u>CDPH Website</u> and the <u>NYT Map and</u> <u>Table</u> (includes data by county)
 - California COVID-19 Statewide Update as of February 17, 2022
- San Mateo County COVID-19 Dashboard
- Santa Clara County COVID-19 Dashboard

ADDITIONAL COVID-19 RESOURCES

- San Mateo County COVID-19 Guidance and Resources for Clinicians and Facilities COVID-19 Digests
- Covid-WEB (Wastewater Epidemiology for the Bay Area)
- Palo Alto Online tracking the coronavirus in San Mateo and Santa Clara counties
- <u>California COVID-19 Data and Tools</u>
- <u>CDPH COVID-19 Assessment and Modeling Tool</u>
- California Department of Corrections and Rehabilitations Population COVID-19 Tracking Dashboards
- <u>CDC Interactive Serology Dashboard for Commercial Laboratory Surveys</u>
- HHS Coronavirus Data Hub
- COVID-19 Nursing Home Data

