

November 25, 2020

CLINICAL PEARL

The identification of the novel coronavirus SARS-CoV-2 in December 2019 has led to a growing and evolving body of knowledge about the virus and the disease it causes, COVID-19. **COVID-19 survivors, including individuals who initially experience a mild acute illness, often report persistent symptoms**. While older patients may have an increased risk for severe disease, young survivors, including those physically fit prior to SARS-CoV-2 infection, have also reported persistent symptoms months after acute illness. The **most commonly reported symptoms include fatigue, dyspnea, cough, arthralgia, and chest pain**. Other reported symptoms include **cognitive impairment, depression, myalgia, headache, fever, and palpitations**. More serious complications appear to be less common but have been reported. These complications include **myocardial inflammation, ventricular dysfunction, pulmonary function abnormalities, acute kidney injury, rash, alopecia, olfactory and gustatory dysfunction, sleep dysregulation, memory impairment and changes in mood**.

Characterization of the etiology and pathophysiology of late sequelae is underway and may reflect organ damage from the acute infection phase, manifestations of a persistent hyperinflammatory state, ongoing viral activity associated with a host viral reservoir, or an inadequate antibody response. Factors in addition to acute disease that may further complicate the picture include physical deconditioning at baseline or after a long disease course, pre-COVID-19 comorbidities, and psychological sequelae following a long or difficult disease course as well as those relating to lifestyle changes due to the pandemic. Likely, the persistent sequelae of COVID-19 represent multiple syndromes resulting from distinct pathophysiological processes along the spectrum of disease.

Post-COVID-19 care centers are opening at academic medical centers in the United States, bringing together multidisciplinary teams to provide a comprehensive and coordinated treatment approach to COVID-19 aftercare. The National Institutes of Health have published <u>interim guidelines for the medical management of COVID-19</u>, including a section on persistent symptoms or illnesses after recovery from acute COVID-19. Multi-year studies will be crucial in elucidating longer-term sequelae. CDC continues active investigation into the full spectrum of COVID-19 to establish a more complete understanding of the natural history of SARS-CoV-2 infection and COVID-19 related illnesses, which will inform care strategies as well as the public health response to this virus.

GUIDANCE/GUIDELINES

- San Mateo County Health: <u>Safety Recommendations For Holiday Travel Best to avoid traveling</u> and <u>Recommendations For Staying Safe From COVID-19 During The Holidays How to Gather Safely</u>
- California Department of Public Health (CDPH): <u>Guidance for the Prevention of COVID-19 Transmission for</u> <u>Gatherings</u> and <u>Travel Advisory</u> to all Californians
- CDC: <u>Celebrating Thanksgiving</u> and <u>Holiday Celebrations and Small Gatherings</u>
- <u>State of California Issues Limited Stay at Home Order to Slow Spread of COVID-19</u> requiring that all nonessential work and activities stop between 10 PM - 5 AM in counties in the purple tier. The order took effect on November 21 and will remain in effect until December 21, 2020.
 - o California's Limited Stay at Home Order Q&A
- <u>California, Oregon & Washington Issue Travel Advisories</u> recommending 14-day quarantines for inter-state and international travel and asking residents to stay local
- CDPH: Guidance for the Use of Face Coverings (updated)
- Infectious Diseases Society of America: <u>Guidelines on the Treatment and Management of Patients with</u> <u>COVID-19</u>, with revisions to the sections on lopinavir/ritonavir, tocilizumab, and remdesivir and a new recommendation on the use of bamlanivimab.

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• NIH <u>The COVID-19 Treatment Guidelines Panel's Statement on the Emergency</u> <u>Use Authorization of Bamlanivimab for the Treatment of COVID-19</u>

PUBLIC HEALTH UPDATES

- San Mateo County Health: <u>Health Officer Statement dated November 23, 2020</u>.
- American Hospital Association, American Medical Association, and American Nurses Association: <u>open letter</u> urging the public to scale back holiday gatherings to stop further COVID-19 spread
- CDC: <u>COVID-19 and Cruise Ship Travel</u> -updated page to reflect the very high level of COVID-19 risk on cruise ships (level 4).
- FDA:
 - o FDA Authorizes Monoclonal Antibodies for Treatment of COVID-19
 - o <u>FDA's Ongoing Commitment to Transparency for COVID-19 EUAs</u>
 - <u>EUA to permit the emergency use of baricitinib, in combination with remdesivir</u>, for treatment of suspected or laboratory confirmed COVID-19
 - <u>Emergency use authorization (EUA) for the first COVID-19 diagnostic test for self-testing at home</u>
 <u>Lucira COVID-19 All-In-One Test Kit FAQ.</u>
- United States Government Accountability Office (GAO) November Report: <u>Federal Efforts Accelerate Vaccine</u> <u>and Therapeutic Development, but More Transparency Needed on Emergency Use Authorizations</u>

RESOURCES

- State of California Race and Ethnicity Data
- MultiState COVID-19 State and Local Policy Dashboard
- University of Washington Institute of Health Metrics and Evaluation COVID-19 Projections
- NIH Clinical Trials
 - National Institutes of Health, National Institute of Allergy and Infectious Diseases
 - A longitudinal study of COVID-19 sequelae and immunity
 - University of California, San Francisco
 - Long-term impact of infection with novel coronavirus (COVID-19) (LIINC)
- CDC <u>MMWR Weekly COVID-19 Briefing Podcasts</u>
- California Medical Association Virtual Grand Rounds (all recorded webinar videos)
 - o Virtual Grand Rounds: COVID-19 Vaccine Update
- UCSF Medicine Grand Rounds <u>COVID-19: Update on Vaccines and Therapeutics</u>
- Johns Hopkins University webinar COVID-19 in the USA
- University of Nebraska Medical Center and Practice Point Communications <u>COVID-19 and HIV: Clinical Trends</u> and Management Considerations
- Federal Facilities Council Webinar: <u>Heating, Ventilation, and Air Conditioning Strategies in Response to</u> <u>COVID-19</u>
- Georgia Institute of Technology, Applied Bioinformatics Laboratory and Stanford University <u>COVID-19 Event</u> <u>Risk Assessment Planning Tool</u>



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ACADEMIC/RESEARCH PAPERS

- JAMA
 - o <u>The Challenges Ahead With Monoclonal Antibodies From Authorization to Access</u>
 - o Delirium in Older Patients With COVID-19 Presenting to the Emergency Department
 - o Older Adults and the Mental Health Effects of COVID-19
 - o Diagnosis, Management, and Pathophysiology of Arterial and Venous Thrombosis in COVID-19
 - Assessment of 135 794 Pediatric Patients Tested for Severe Acute Respiratory Syndrome Coronavirus 2 Across the United States
 - Outcomes for Out-of-Hospital Cardiac Arrest in the United States During the Coronavirus Disease 2019 Pandemic
 - o <u>Outcomes of Contact Tracing in San Francisco, California—Test and Trace During Shelter-in-Place</u>
- medRxiv
 - <u>Performance characteristics of a rapid SARS-CoV-2 antigen detection assay at a public plaza testing site</u> in San Francisco
 - o <u>SARS-CoV-2 antibody responses in children with MIS-C and mild and severe COVID-19</u>
 - o <u>Causal Impacts of Teaching Modality on U.S. COVID-19 Spread in Fall 2020 Semester</u>
- Journal of Adolescent Health
 - <u>Evaluation of COVID-19 Testing Strategies for Repopulating College and University Campuses: A</u> <u>Decision Tree Analysis</u>
- Cell
 - <u>Case Study: Prolonged Infectious SARS-CoV-2 Shedding from an Asymptomatic Immunocompromised</u> <u>Individual with Cancer</u>
- Science Advances
 - o <u>Test sensitivity is secondary to frequency and turnaround time for COVID-19 screening</u>
- Annals of Internal Medicine
 - <u>Effectiveness of Adding a Mask Recommendation to Other Public Health Measures to Prevent SARS-</u> <u>CoV-2 Infection in Danish Mask Wearers - A Randomized Controlled Trial</u>
- Nature
 - o <u>Neighbourhood income and physical distancing during the COVID-19 pandemic in the United States</u>
 - o What the data say about asymptomatic COVID infections
- PLOS
 - <u>Proportion of asymptomatic infection among COVID-19 positive persons and their transmission</u> potential: A systematic review and meta-analysis
 - o <u>On the whereabouts of SARS-CoV-2 in the human body: A systematic review</u>
- Emerging Infectious Diseases
 - o COVID-19 Infection Control Measures in Long-Term Care Facility, Pennsylvania, USA
 - o <u>Sensitive Detection of SARS-CoV-2–Specific Antibodies in Dried Blood Spot Samples</u>
 - o Antibody Profiles According to Mild or Severe SARS-CoV-2 Infection, Atlanta, Georgia, USA, 2020
 - o <u>Serologic Responses in Healthy Adult with SARS-CoV-2 Reinfection, Hong Kong, August 2020</u>
 - SARS-CoV-2 in Quarantined Domestic Cats from COVID-19 Households or Close Contacts, Hong Kong, China
 - o SARS-CoV-2 Natural Transmission from Human to Cat, Belgium, March 2020
 - o <u>Effects of Cocooning on Coronavirus Disease Rates after Relaxing Social Distancing</u>
- Clinical Infectious Diseases
 - <u>COVID-19 seropositivity and asymptomatic rates in healthcare workers are</u> <u>associated with job function and masking</u>





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- The Lancet
 - o Safety and immunogenicity of ChAdOx1 nCoV-19 vaccine administered in
 - a prime-boost regimen in young and old adults (COV002): a single-blind, randomised, controlled, phase <u>2/3 trial</u>
 - o <u>SARS-CoV-2</u>, <u>SARS-CoV</u>, and <u>MERS-CoV</u> viral load dynamics, duration of viral shedding, and <u>infectiousness: a systematic review and meta-analysis</u>
- bioRxiv
 - o <u>Intranasal fusion inhibitory lipopeptide prevents direct contact SARSCoV-2 transmission in ferrets</u>
 - o Immunological memory to SARS-CoV-2 assessed for greater than six months after infection
 - o <u>Evolution of Antibody Immunity to SARS-CoV-2</u>
- Neurology
 - o <u>A Prospective Study of Neurologic Disorders in Hospitalized COVID-19 Patients in New York City</u>
- American Journal of Neuroradiology
 - o Brain MR Spectroscopic Findings in 3 Consecutive Patients with COVID-19: Preliminary Observations
- Diseases
 - o Incidence of Myocardial Injury in COVID-19-Infected Patients: A Systematic Review and Meta-Analysis
- American Heart Association Journal
 - Racial and Ethnic Differences in Presentation and Outcomes for Patients Hospitalized with COVID-19: Findings from the American Heart Association's COVID-19 Cardiovascular Disease Registry
- Annals of the American Thoracic Society
 - <u>Comparison of Clinical Features and Outcomes in Critically III Patients Hospitalized with COVID-19</u> <u>versus Influenza</u>
- Clinical Journal of the American Society of Nephrology
 - o Acute Kidney Injury in a National Cohort of Hospitalized US Veterans with COVID-19
- BMJ Journal
 - o <u>A living WHO guideline on drugs for covid-19</u>
- American Journal of Microbiology
 - o Analysis of Measles-Mumps-Rubella (MMR) Titers of Recovered COVID-19 Patients
- International Journal of Indoor Environment and Health
 - o Indoor transmission of SARS-CoV-2

MMWR

- <u>The Advisory Committee on Immunization Practices' Ethical Principles for Allocating Initial Supplies of COVID-</u> <u>19 Vaccine — United States, 2020</u>
- <u>COVID-19 Outbreak Associated with a 10-Day Motorcycle Rally in a Neighboring State Minnesota, August-September 2020</u>
- <u>Trends in County-Level COVID-19 Incidence in Counties With and Without a Mask Mandate Kansas, June</u> <u>1–August 23, 2020</u>
- <u>Characterization of COVID-19 in Assisted Living Facilities 39 States, October 2020</u>
- <u>COVID-19 Outbreak New York City, February 29–June 1, 2020</u>
- <u>COVID-19 Incidence, by Urban-Rural Classification United States, January 22–October 31, 2020</u>





HOT OFF THE (LAY) PRESS

- The New York Times
 - The C.D.C. urged Americans not to travel for Thanksgiving and to consider canceling plans with relatives outside their households.
 - o <u>Despite officials' warnings and pleas, travel over Thanksgiving is expected to hit a pandemic peak.</u>
 - o No, a Negative Coronavirus Test Does Not Mean You Can Safely Socialize
 - <u>A quarter of a million Americans have died from the coronavirus, passing the number Dr. Anthony</u> <u>Fauci predicted in March, with no sure end in sight.</u>
 - o U.S. records 12 millionth case as virus surge gathers speed
 - o <u>1 America, 1 Pandemic, 2 Realities</u>
 - o <u>Virus Words vs. Actions</u>
 - o Small Gatherings Spread the Virus, but Are They Causing the Surge?
 - o <u>States That Imposed Few Restrictions Now Have the Worst Outbreaks</u>
 - o Virus Cases Rise, but Hazard Pay for Retail Workers Doesn't
 - o <u>Recession With a Difference: Women Face Special Burden</u>
 - o Immunity to the Coronavirus May Last Years, New Data Hint
 - o <u>New Pfizer Results: Coronavirus Vaccine Is Safe and 95% Effective</u>
 - <u>Pfizer completed its coronavirus vaccine trial. It says the shots are 95 percent effective, have no serious</u> side effects and work for older people.
 - <u>Pfizer has asked the F.D.A. to authorize its vaccine for emergency use, potentially allowing the first</u> <u>Americans to get a vaccine by mid-December.</u>
 - o What We Know About AstraZeneca's Head-Scratching Vaccine Results
 - o <u>Here's how the U.S. government plans to distribute the first Covid-19 vaccines</u>
 - o <u>A C.D.C. advisory group discussed which Americans should get vaccines first</u>
 - o <u>States Vow Extra Scrutiny of Coronavirus Vaccine</u>
 - o Debatable: A shot at ending the pandemic
 - o The Vaccines Will Probably Work. Making Them Fast Will Be the Hard Part.
 - o <u>Children in the U.S. may miss 9 million vaccine doses this year, a report warns</u>
 - <u>New York City's school system, the nation's largest, will close as virus cases rise. It's a big setback to the city's recovery.</u>
 - o Debatable: This is not going to stop the virus. Should kids have class in bars?
 - o <u>Coronavirus Briefing: France bends the curve</u>
 - o <u>Coronavirus Briefing: Health care workers are begging: "Wear. A. Mask"</u>
 - o <u>Coronavirus Briefing: We talk to Dr. Fauci</u>
 - o <u>California Today: What to Know About the California Curfew</u>
 - The F.D.A. granted emergency authorization for the Regeneron antibody treatment given to President Trump after he was diagnosed with Covid-19.
 - o <u>F.D.A. authorizes the first at-home coronavirus test.</u>
- Lucira Health Press Release
 - o Lucira Health Receives 1st FDA Authorization for COVID-19 Self-Testing At Home
- NPR/KQED
 - o FDA Approves 1st At-Home Coronavirus Test
 - o <u>Americans Could See A Vaccine By Mid-December, Says Operation Warp Speed Adviser</u>
 - o <u>Why Does Pfizer's COVID-19 Vaccine Need To Be Kept Colder Than Antarctica?</u>
 - o Millions Of Americans Traveling For Thanksgiving, Ignoring CDC Advice
 - o As U.S. Reaches 250,000 Deaths From COVID-19, A Long Winter Is Coming





- <u>1,000 U.S. Hospitals Are 'Critically' Short On Staff And More Expect To</u> <u>Be Soon</u>
- o <u>COVID-19 Denial Still Rampant In Some Virus Hot Spots</u>
- o Tyson Managers Suspended After Allegedly Betting If Workers Would Contract COVID
- o Mask Mandates Work To Slow Spread Of Coronavirus, Kansas Study Finds
- o Don't Call It a Curfew: California's New, Less Restrictive Stay-at-Home Order Still Draws Backlash
- o This Map Shows the COVID-19 Risk for Gatherings in Each California County
- The Washington Post
 - o Map: The coronavirus risk for a big Thanksgiving dinner in your community
 - o More than 3 million people in U.S. estimated to be contagious with the coronavirus
 - o <u>A birthday lunch left 15 Texas relatives battling covid-19: 'Please don't be like my family'</u>
 - o <u>A traveler tested negative for covid-19 before a flight. He had the virus and infected 4 passengers.</u>
 - o <u>A covid-fighting tool is buried in your phone. Turn it on.</u>
 - o <u>These 3 tools can help you navigate quarantine and testing policies by state</u>
- Kaiser Family Foundation
 - o States Are Getting Ready to Distribute COVID-19 Vaccines. What Do Their Plans Tell Us So Far?
- Politico
 - o Inoculations by December? States aren't so sure.
- STAT News
 - o <u>AstraZeneca Covid-19 vaccine is 70% effective on average, early data show</u>
- The Los Angeles Times
 - o AstraZeneca, Oxford University say their COVID-19 vaccine is up to 90% effective
 - o <u>Daily California coronavirus cases triple as pandemic dramatically worsens</u>
 - o <u>New stay-home order looms for L.A. County as COVID-19 cases soar to new highs</u>
 - o Will California's small businesses survive another COVID-19 surge without more help?
 - o <u>Hospitals brace for holiday COVID surge, fearing staff shortages and burnout</u>
- Science Magazine
 - o Can a nose-full of chicken antibodies ward off coronavirus infections?
 - o More people are getting COVID-19 twice, suggesting immunity wanes quickly in some
- Medpage Today
 - o <u>COVID's Heart Complications Modest in Large Registry</u>
- Medscape
 - o Phase 3 Trial Begins of COVID-19 Antibody Treatment for Immune Suppressed People
- Diagnostic Imaging
 - o <u>Hypertension, Diabetes Increase Risk of COVID-19 Neurological Complications</u>
- PBS
 - o As COVID deaths soar, nursing home deaths caused by neglect surge in the shadows
- Reuters
 - o U.S. government to send out over 7 million Abbott BinaxNOW tests this week
 - o Roche's Actemra helps the sickest COVID-19 patients, study shows
 - o <u>Eli Lilly arthritis drug gets FDA nod for emergency use with remdesivir to treat COVID-19</u>
 - o Moderna vaccine storage requirements enables distribution in rural America: U.S. official
 - o FDA to make emergency use authorization data public for COVID-19 vaccines
 - o U.S. hospitals to restrict Lilly COVID-19 antibody treatment due to limited supply
- CNBC
 - o <u>HHS launches pilot program in five states using rapid Covid test deployed by NBA</u>



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- The Atlantic
 - <u>Hospitals Can't Go On Like This Twenty-two percent of American</u> <u>hospitals don't have enough workers right now.</u>
 - o <u>The End of the Pandemic Is Now in Sight</u>
- Twin Cities Pioneer Press
 - o 900 on Mayo Clinic staff have contracted coronavirus in last two weeks
- The Hill
 - o More than 1 million US children diagnosed with COVID-19: report
- Health Affairs
 - o <u>Averting "Generational Catastrophe": How We Can Safely Re-Open Our Schools</u>
- AP News
 - o Empty desks: Coronavirus robs US classrooms of teachers
 - o <u>Cal/Osha fines Farmer John for hundreds of COVID-19 cases</u>
- CapRadio
 - o <u>'We Are At The Breaking Point:' California's Childcare Providers Sound The Alarm</u>
 - o <u>Filipino Population Is High-Risk For COVID-19, But Very Little Data On The Community's Outcomes Exist</u>
 - o California Hospitals Applying Early Lessons As They Brace For A COVID-19 Surge
- San Francisco Chronicle
 - o <u>Health officials' plea: Cancel the Thanksgiving spread and stay home</u>
 - o <u>At SFO, travelers take coronavirus risk in stride during Thanksgiving rush</u>
 - o California case counts surge, prompting state and Bay Area officials to tighten coronavirus protocols
 - o <u>Gov. Newsom announces curfew for California counties in purple tier</u>
 - o <u>California overnight curfew: What's allowed, and which Bay Area counties are affected</u>
 - o <u>California nursing homes see surge in coronavirus cases amid statewide spike</u>
 - o Charts show how Bay Area's current coronavirus surge is already worse than the last one
 - o In California, science guides whether to reopen hair salons but not always schools
 - o <u>Bay Area's soaring coronavirus cases could 'overwhelm our local health care system,' experts warn</u>
 - o The third wave of coronavirus is washing over the Bay Area. How will we weather the storm?
 - With move to red and purple tiers, Bay Area businesses brace for more coronavirus pain
 - o Bay Area sees racial shift in coronavirus: Positive tests down for Latinos, up for whites
 - o Face mask rules for the Bay Area: When and how to use them
 - o First rain of season unveils a new pollution problem: masks and gloves pandemic PPE

EPIDEMIOLOGY UPDATES

- US Leads the World in Confirmed COVID-19 Cases per Johns Hopkins University Center for Systems Science and Engineering Dashboard Website
- Johns Hopkins COVID-19 in the USA daily summary of key data on COVID-19 in the U.S.
- 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 <u>COVID-19 Statewide Update</u> as of November 25, 2020

- <u>San Mateo County COVID-19 Dashboard</u>
- <u>Santa Clara County COVID-19 Dashboard</u>



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ADDITIONAL COVID-19 RESOURCES

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

