

COVID-19 Digest Issue 17

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CLINICAL PEARL

• Myasthenia gravis after COVID-19: 3 cases of acetylcholine receptors (AChR) antibody—positive myasthenia gravis after COVID-19 infection were recently reported, consistent with previous reports of other infectious agents such as Campylobacter jejuni, Epstein—Barr virus, cytomegalovirus and Zika virus inducing a variety of autoimmune disorders, as well as with the growing evidence of neurologic disorders such as Guillain—Barré syndrome with presumed autoimmune mechanisms after the onset of COVID-19 infection. Symptoms of myasthenia gravis appeared within 5 to 7 days after fever onset in all 3 patients, and the time from presumed infection with SARS-CoV-2 to the beginning of myasthenia gravis symptoms was similar to the time from infection to symptoms onset seen in other neurologic disorders triggered by infections. One hypothesis is that antibodies that are directed against SARS-CoV-2 proteins cross-react with AChR subunits, because the virus has epitopes that are similar to components of the neuromuscular junction; this is known to occur in other neurologic autoimmune disorders after infection. Alternatively, COVID-19 infection may break immunologic self-tolerance.

GUIDANCE

- The American Academy of Pediatrics (AAP), drawing from the latest evidence, <u>issued three new interim</u> guidance documents on the care of children during the COVID-19 pandemic. New recommendations address:
 - o Children's use of cloth face coverings
 - o <u>Testing protocols for children</u>
 - o Personal protective equipment (PPE) for pediatric medical providers

ACADEMIC/RESEARCH PAPERS

- National Institute of Allergy and Infectious Diseases Press Release
 - Clinical Trials of Monoclonal Antibodies to Prevent COVID-19 Now Enrolling
- Nature
 - o Phase 1/2 study of COVID-19 RNA vaccine BNT162b1 in adults
- bioRxov
 - An ultra-high affinity synthetic nanobody blocks SARS-CoV-2 infection by locking Spike into an inactive conformation
- Science
 - Selective and cross-reactive SARS-CoV-2 T cell epitopes in unexposed humans
- medRxiv
 - Covid-19 Risk Among Airline Passengers: Should the Middle Seat Stay Empty?
- Cleveland Clinic Journal of Medicine
 - o Coagulopathy in COVID-19: Manifestations and management
 - o Thoracic imaging in COVID-19
- Journal of Global Health
 - o The role of children in transmission of SARS-CoV-2: A rapid review
- Pediatrics
 - Novel Coronavirus Infection in Febrile Infants Aged 60 Days and Younger
- Journal of the Pediatric Infectious Diseases Society
 - o Burden of illness in households with SARS-CoV-2 infected children



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- JAMA Pediatrics
 - Returning to School in the Era of COVID-19
 - o Plans of US Parents Regarding School Attendance for Their Children in the Fall of 2020 A National
 - Operational Considerations on the American Academy of Pediatrics Guidance for K-12 School Reentry

JAMA

- Ultrastructural Evidence of Direct Viral Damage to the Olfactory Complex in Patients Testing Positive for SARS-CoV-2
- Assessment of Lupus Anticoagulant Positivity in Patients With Coronavirus Disease 2019 (COVID-19)
- Effect of an Inactivated Vaccine Against SARS-CoV-2 on Safety and Immunogenicity Outcomes: Interim Analysis of 2 Randomized Clinical Trials
- o Association Between Number of In-Person Health Care Visits and SARS-CoV-2 Infection in Obstetrical **Patients**
- o Characteristics and Outcomes of COVID-19 Patients During Initial Peak and Resurgence in the Houston Metropolitan Area
- o Comparison of Estimated Excess Deaths in New York City During the COVID-19 and 1918 Influenza **Pandemics**
- Changes in the Number of US Patients With Newly Identified Cancer Before and During the Coronavirus Disease 2019 (COVID-19) Pandemic
- Assessment of Community-Level Disparities in Coronavirus Disease 2019 (COVID-19) Infections and Deaths in Large US Metropolitan Areas
- Cascading Risks of COVID-19 Resurgence During an Active 2020 Atlantic Hurricane Season
- Characteristics and Quality of US Nursing Homes Reporting Cases of Coronavirus Disease 2019 (COVID-19)
- o Coronavirus Disease 2019 Outcomes in French Nursing Homes That Implemented Staff Confinement With Residents
- o Prevalence of SARS-CoV-2 Infection Among Asymptomatic Health Care Workers in the Greater Houston, Texas, Area
- Prevalence of SARS-CoV-2 Antibodies in Health Care Personnel in the New York City Area
- Prevalence of SARS-CoV-2 Infection Among Health Care Workers in a Tertiary Community Hospital
- Prevalence of Health Care Worker Burnout During the Coronavirus Disease 2019 (COVID-19) Pandemic in Japan
- o Precision Public Health as a Key Tool in the COVID-19 Response
- American Journal of Infection Control
 - o What are the sources of exposure in healthcare personnel with coronavirus disease 2019 infection?
- JAMA Psychiatry
 - Mood Homeostasis Before and During the Coronavirus Disease 2019 (COVID-19) Lockdown Among Students in the Netherlands
- Radiology Society of North America
 - Exacerbation of Physical Intimate Partner Violence during COVID-19 Lockdown
- **PLOS Medicine**
 - Social distancing to slow the US COVID-19 epidemic: Longitudinal pretest-posttest comparison group study
- CDC Emerging Infectious Diseases
 - Potential Role of Social Distancing in Mitigating Spread of Coronavirus Disease, South Korea



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- Transmission of SARS-CoV-2 Involving Residents Receiving Dialysis in a Nursing Home Maryland, April 2020
- Facility-Wide Testing for SARS-CoV-2 in Nursing Homes Seven U.S. Jurisdictions, March–June 2020
- Mental Health, Substance Use, and Suicidal Ideation During the COVID-19 Pandemic United States, June 24–30, 2020
- <u>Serious Adverse Health Events, Including Death, Associated with Ingesting Alcohol-Based Hand Sanitizers</u> Containing Methanol — Arizona and New Mexico, May—June 2020
- <u>Disparities in Incidence of COVID-19 Among Underrepresented Racial/Ethnic Groups in Counties Identified as</u> Hotspots During June 5–18, 2020 — 22 States, February–June 2020
- Trends in Number and Distribution of COVID-19 Hotspot Counties United States, March 8–July 15, 2020
- Notes from the Field: Seroprevalence Estimates of SARS-CoV-2 Infection in Convenience Sample Oregon, May 11–June 15, 2020

HOT OFF THE (LAY) PRESS

- The Economist
 - o The world is spending nowhere near enough on a coronavirus vaccine
- UCSF News
 - o 'AeroNabs' Promise Powerful, Inhalable Protection Against COVID-19
- The New York Times
 - o The Coronavirus Could Dodge Some Treatments, Study Suggests
 - Here's How to Crush the Virus Until Vaccines Arrive
 - o The Coronavirus Is New, but Your Immune System Might Still Recognize It
 - o This Contact Tracer Is Fighting Two Contagions: The Virus and Fear
 - o A California Health Official's Abrupt Resignation
 - o <u>'1'd Rather Stay Home and Die' A fear of hospitals is leading many Mexicans to delay treatment for coronavirus until it is too late for doctors to help them</u>
 - o Trump Considers Banning Re-entry by Citizens Who May Have Coronavirus
 - o The U.S. Lifted Its Advisory Against Traveling Abroad. What Does That Mean?
 - o 1,193 Quarantined for Covid. Is This a Successful School Reopening?
 - o <u>A Smoking Gun': Infectious Coronavirus Retrieved From Hospital Air</u>
 - o <u>In a letter, 34 current and former health department advisers criticized new rules on virus data collection, which have raised fears of politicization.</u>
- STAT News
 - Winter is coming: Why America's window of opportunity to beat back Covid-19 is closing
- JAMA News
 - Researchers Strive to Recruit Hard-Hit Minorities Into COVID-19 Vaccine Trials
- SF Gate
 - o Kaiser to launch Phase 3 testing of coronavirus vaccine in 1,400 California and Oregon adults
- Reuters
 - o Putin hails new Sputnik moment as Russia is first to approve a COVID-19 vaccine
 - o COVID-19 cases in U.S. children soared in late July, report says
 - o <u>Israeli hospital trials super-quick saliva test for COVID-19</u>
- AP News
 - <u>Distrust of authority fuels virus misinformation for Latinos</u>



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- Bloomberg
 - The Odds of Catching Covid on a Flight Are Slim
- BBC News
 - o Coronavirus in Europe: Infections surge in France, Germany and Spain
- The Philadelphia Tribune
 - o Africa begins continent-wide study of COVID-19 antibodies
- Medpage Today
 - o <u>Fauci: Here's How Schools Can Safely Reopen— Areas with high case loads 'have a choice. You can</u> either close the bars or close the schools'
- CNN
 - o More than 2,000 students, teachers and staff quarantined in several schools
- The New Yorker
 - o The Woeful Inadequacy of School-Reopening Plans
 - o Trump's Unprecedented Attacks on Our Public Health System
- The Los Angeles Times
 - o As COVID-19 cases surge, patients are dying at a lower rate. Here's why
 - o Party houses defying COVID-19 orders may have utility shut off, mayor says
- San Francisco Chronicle
 - California prison workers file grievance alleging unsafe conditions to prevent coronavirus outbreaks
- NBC Bay Area
 - o Some workers sickened by COVID-19 face an extra challenge: Proving where they got it
 - o U.S. to make coronavirus strain for possible human challenge trials
 - o Why have 14,000 people volunteered to be infected with coronavirus?

EPIDEMIOLOGY UPDATES

- US Leads the World in Confirmed COVID-19 Cases per <u>Johns Hopkins University Center for Systems Science</u> and Engineering Dashboard Website
- California COVID-19 by the numbers are available on the <u>CDPH Website</u> and the <u>NYT Map and Table</u> (includes data by county)
 - California <u>COVID-19 Statewide Update</u> as of August 18, 2020
- San Mateo County COVID-19 Dashboard
- Santa Clara County COVID-19 Dashboard

ADDITIONAL COVID-19 RESOURCES

- Palo Alto Online tracking the coronavirus in San Mateo and Santa Clara counties
- COVID-19 California Statewide Case Statistics
- CDPH COVID-19 Assessment and Modeling Tool
- California Department of Corrections and Rehabilitations Population COVID-19 Tracking Dashboards
- COVID-19 Nursing Home Data
- CDC Interactive Serology Dashboard for Commercial Laboratory Surveys
- CDC COVID-19 Forecasts: Deaths
- HHS Coronavirus Data Hub

