COVID-19 Digest Issue 11
July 10, 2020

CLINICAL PEARL

- **Steroids and COVID-19**: The [NIH COVID-19 Treatment Guidelines](https://www.nih.gov/about-nih/od/od41/departments/niaid/about-niaid/clinical-trials-guidelines) provide considerations for the usage of corticosteroid therapy as concomitant medication in patients with COVID-19. In summary, the recommendations for use of corticosteroids in patients with COVID-19 depend on the severity of illness, indication, and underlying medical conditions and should be considered on a case-by-case basis. In the absence of ARDS, the routine use of corticosteroids is not recommended, although patients with COVID-19 may have other indications to receive corticosteroids, including refractory shock or myocarditis.

Oral corticosteroid therapy used prior to COVID-19 diagnosis for another underlying condition (e.g., primary or secondary adrenal insufficiency, rheumatological disease) should not be discontinued. Inhaled corticosteroids used daily for patients with asthma and chronic obstructive pulmonary disease for control of airway inflammation should not be discontinued either. While corticosteroid therapy was associated with delayed virus clearance in MERS and SARS, it has therapeutic benefit in suppressing cytokine-related lung injury. The guidelines do not discuss the possible role of corticosteroid therapy to treat hypoxia.

On 6/16/2020, a pre-print version of the [RECOVERY trial](https://www.imperial.ac.uk/medicine/novator/publications/dexamethasone-recovery/) (a randomized, controlled trial) announced that dexamethasone could reduce death by up to 1/3 in hospitalized patients with severe respiratory complications of COVID-19, a major breakthrough in COVID-19 treatment. While dexamethasone reduces 28-day mortality among those receiving invasive mechanical ventilation or oxygen at randomization, it does not benefit patients NOT receiving respiratory support. Limited data have been published from uncontrolled studies that used varying doses and durations of corticosteroid therapy for COVID-19. In a retrospective cohort study published in JAMA Intern Med on 03/13/2020, a series of patients with COVID-19 and associated ARDS showed a decrease in mortality (HR 0.38; 95% CI, 0.20-0.72) with methylprednisolone but there were confounding factors in this analysis. In a multi-center quasi-experimental study published in Clinical Infectious Disease on 05/19/2020, an early short course of methylprednisolone in moderately to severely ill COVID-19 patients reduced the composite endpoint of escalation of care from ward to ICU, new requirement for mechanical ventilation, and mortality. The results of ongoing clinical trials will enable clinicians to make evidence-based decisions about the role of corticosteroids in the treatment of COVID-19 patients.

GUIDANCE


ACADEMIC/RESEARCH PAPERS

- [Annals of Internal Medicine](https://annals.org/)
  - Obesity and COVID-19 in New York City: A Retrospective Cohort Study
  - Clinical Validity of Serum Antibodies to SARS-CoV-2
  - Regulatory T Cells for Treating Patients With COVID-19 and Acute Respiratory Distress Syndrome: Two Case Reports
  - How to Safely Reopen Colleges and Universities During COVID-19: Experiences From Taiwan
  - Reopening Colleges and Universities During the COVID-19 Pandemic
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- **JAMA**
  - School Superintendents Confront COVID-19—“There Are No Good Options for Next Year”
  - Persistent Symptoms in Patients After Acute COVID-19
  - Risk of Ischemic Stroke in Patients With Coronavirus Disease 2019 (COVID-19) vs Patients With Influenza
  - Admissions to Veterans Affairs Hospitals for Emergency Conditions During the COVID-19 Pandemic
  - Nursing Home Care in Crisis in the Wake of COVID-19
  - Detection of SARS-CoV-2 in Different Types of Clinical Specimens
  - Developing a SARS-CoV-2 Vaccine at Warp Speed
  - The Development of COVID-19 Vaccines - Safeguards Needed
  - Association of Noninvasive Oxygenation Strategies With All-Cause Mortality in Adults With Acute Hypoxemic Respiratory Failure - A Systematic Review and Meta-analysis
  - Neurologic and Radiographic Findings Associated With COVID-19 Infection in Children
  - Excess Deaths From COVID-19 and Other Causes, March-April 2020

- **JAMA Internal Medicine**
  - Estimation of Excess Deaths Associated With the COVID-19 Pandemic in the United States, March to May 2020
  - Staying Apart During a Pandemic
  - What Other Countries Can Learn From Italy During the COVID-19 Pandemic
  - Risk Factors Associated With Acute Respiratory Distress Syndrome and Death in Patients With Coronavirus Disease 2019 Pneumonia in Wuhan, China
  - Is a “Cytokine Storm” Relevant to COVID-19?

- **Brain Journal of Neurology**
  - The emerging spectrum of COVID-19 neurology: clinical, radiological and laboratory findings

- **Clinical Infectious Diseases**
  - Statewide Interventions and Covid-19 Mortality in the United States: An Observational Study
  - It is Time to Address Airborne Transmission of COVID-19

- **Travel Medicine and Infectious Disease**
  - Potential transmission of SARS-CoV-2 on a flight from Singapore to Hangzhou, China: An epidemiological investigation

- **CDC Emerging Infectious Diseases**
  - High Proportion of Asymptomatic SARS-CoV-2 Infections in 9 Long-Term Care Facilities, Pasadena, California, USA, April 2020
  - Main Routes of Entry and Genomic Diversity of SARS-CoV-2, Uganda
  - Coronavirus Disease Exposure and Spread from Nightclubs, South Korea

**MMWR**
- Update: COVID-19 Among Workers in Meat and Poultry Processing Facilities — United States, April–May 2020
- Increases in Health-Related Workplace Absenteeism Among Workers in Essential Critical Infrastructure Occupations During the COVID-19 Pandemic — United States, March–April 2020
- Provision of Pediatric Immunization Services During the COVID-19 Pandemic: an Assessment of Capacity Among Pediatric Immunization Providers Participating in the Vaccines for Children Program — United States, May 2020
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- Race/Ethnicity, Underlying Medical Conditions, Homelessness, and Hospitalization Status of Adult Patients with COVID-19 at an Urban Safety-Net Medical Center — Boston, Massachusetts, 2020
- Initial and Repeated Point Prevalence Surveys to Inform SARS-CoV-2 Infection Prevention in 26 Skilled Nursing Facilities — Detroit, Michigan, March–May 2020

HOT OFF THE (LAY) PRESS

- The New York Times
  - At Least 5 States Set Single-Day Coronavirus Case Records
  - Here’s What Recovery From Covid-19 Looks Like for Many Survivors
  - 68% Have Antibodies in This Clinic. Can Neighborhood Beat a Next Wave?
  - 239 Experts With One Big Claim: The Coronavirus Is Airborne
  - W.H.O. to Review Evidence of Airborne Transmission of Coronavirus
  - The Fullest Look Yet at the Racial Inequity of Coronavirus
  - U.S. Will Pay $1.6 Billion to Novavax for Coronavirus Vaccine
- STAT News
  - Covid-19 vaccine from Pfizer and BioNTech shows positive results
- The Washington Post
  - Coronavirus autopsies: A story of 38 brains, 87 lungs and 42 hearts
- The Guardian
  - Warning of serious brain disorders in people with mild coronavirus symptoms
- BD Press Release
  - BD Launches Portable, Rapid Point-of-Care Antigen Test to Detect SARS-CoV-2 in 15 minutes, Dramatically Expanding Access to COVID-19 Testing
- Kaiser Health News
  - California Prisons Are COVID Hotbeds Despite Billions Spent On Inmate Health
- NPR
  - My Gym Is Reopening. Is It Safe To Work Out There?
- JAMA Forum
- SF Gate
  - Coronavirus cases increasing at UC Berkeley due to frat parties
- The Daily Journal
  - SamTrans grapples with enforcement of face coverings - Board member calling for stricter policies on masks
  - California 'surge' hospitals are costly, but how much?
- San Francisco Chronicle
  - Coronavirus patients from overwhelmed Imperial County fill Bay Area hospital beds
  - Marin County stops indoor dining amid increase in coronavirus cases
  - Have Bay Area restaurants been following COVID-19 rules? Here’s what we know
  - Confused about reopening in the Bay Area? Here’s the latest on the status of each county
  - United Airlines, big SFO employer, may lay off 36,000 workers
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EPIDEMIOLOGY UPDATES

- **California COVID-19 by the numbers** are available on the [CDPH Website](https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID19CasesByCounty.aspx) and the [NYT Map and Table](https://www.nytimes.com/interactive/2020/05/03/us/coronavirus-live-updates-california.html) (includes data by county)
  - California [COVID-19 Statewide Update](https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID19CasesByCounty.aspx) as of July 9, 2020
- [San Mateo County COVID-19 Dashboard](https://www.sanmateo.ca.us/departments/health/coronavirus/covid-19-dashboard)
- [Santa Clara County COVID-19 Dashboard](https://www.santaclaracounty.ca.gov/1665/Coronavirus)

ADDITIONAL COVID-19 RESOURCES

- [COVID-19 California Statewide Case Statistics](https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID19CasesByCounty.aspx)
- [Palo Alto Online tracking the coronavirus in San Mateo and Santa Clara counties](https://www.paloaltoonline.com/)
- [California Department of Corrections and Rehabilitations Population COVID-19 Tracking Dashboards](https://www.cdph.ca.gov/)
- [COVID-19 Nursing Home Data](https://www.cdph.ca.gov/)
- [CDPH COVID-19 Assessment and Modeling Tool](https://www.cdph.ca.gov/)
