



COVID-19 Digest Issue 3

May 13, 2020

CLINICAL PEARLS

- **Cases of multi-system inflammatory syndrome in pediatric patients with potential links to COVID-19:** Documents released by the New York State Department of Health have recently reported a pediatric multi-system inflammatory syndrome potentially associated with COVID-19. As of May 5, a total of 64 suspected cases were reported in New York State. This inflammatory syndrome appears to occur days to weeks after acute COVID-19 illness and has also been reported in the UK and other European countries. The 15 patients reported in the first New York Bulletin ranged from 2 to 15 years of age; 27% tested positive for SARS-CoV-2.

Such pediatric presentations seem to be rare, and while the full spectrum of disease is not known, the syndrome includes features which **overlap with Kawasaki disease and Toxic Shock Syndrome**. Cases presented with **persistent fever, inflammation (including neutrophilia, elevated CRP and lymphopenia), and evidence of single or multi-organ dysfunction**. Some cases had prominent abdominal symptoms; some had a rash and others presented with myocarditis and other cardiovascular changes. Some cases have required blood pressure and ventilatory support.

- **Antihypertensive drugs targeting the renin-angiotensin-aldosterone system (RAAS)** include angiotensin converting enzyme (ACE) inhibitors and angiotensin receptor blockers (ARBs). One of their effects is to **increase expression of ACE2 receptors in human cells -- the same receptors that serve as a portal for the SARS-CoV-2 virus to enter cells. Thus, it had been hypothesized that patients on these agents might be more susceptible to COVID-19 infection and/or suffer more heavily from it.** However, **three observational large studies** recently offered a strong counter to these theoretical concerns and are supporting the [unified voice of professional societies urging against discontinuation](#) of ACE inhibitor or ARB therapy over COVID-19 concerns.

PUBLIC HEALTH UPDATES

- The new San Mateo County [Health Officer order released May 11, 2020](#) allows for certain **Highly Regulated Vehicle-Based Gatherings** where during the entirety of the gathering, every participant, excluding the Host, Personnel, and security, remains in a fully enclosed motorized vehicle parked at least six feet apart from other vehicles and where all occupants of each enclosed vehicle are members of a single household.
- **COVID-19 Serology Testing:** COVID-19 serological assays are intended to detect antibodies against SARS-CoV-2 in blood samples. It may take at least 1 week or longer, following onset of symptoms, for antibodies against SARS-CoV-2 to be detectable. Antibody responses to COVID-19 are not completely understood at this time, which currently limits their clinical utility. Please note **that none of the serological assays, even those granted FDA Emergency Use Authorization (EUA) status, are approved for diagnosing cases of COVID-19.** Therefore, **serology should NOT be used for decisions relating to patient management or care. PCR remains the test of choice for laboratory diagnosis of COVID-19.**
 - As of May 6, 2020, twelve (12) serologic assays have been granted [EUA status by the FDA](#). The FDA has also posted information on the [test performance of these serological assays](#)

GUIDELINES

- Royal College of Paediatrics and Child Health published guidance for [Pediatric Multisystem Inflammatory Syndrome Temporally Associated with COVID-19](#)





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- Infectious Diseases Society of America (IDSA) released diagnostic recommendations for symptomatic and asymptomatic patients with SARS-CoV-2
 - All three parts of the guidance documents for COVID-19 are available on the [IDSA website](#)
 - [Part 1: Treatment and Management](#)
 - [Part 2: Infection Prevention](#)
 - [Part 3: Diagnostics](#)

ACADEMIC/RESEARCH PAPERS

- *Hospital Pediatrics (Pre-publication release)*
 - [COVID-19 and Kawasaki Disease: Novel Virus and Novel Case](#)
- *New England Journal of Medicine*
 - [Renin–Angiotensin–Aldosterone System Inhibitors and Risk of Covid-19](#)
 - [Inhibitors of the Renin–Angiotensin–Aldosterone System and Covid-19](#)
 - [Renin–Angiotensin–Aldosterone System Blockers and the Risk of Covid-19](#)
 - [Renin–Angiotensin–Aldosterone System Inhibitors in Patients with Covid-19](#)
- *JAMA*
 - [Development and Validation of a Clinical Risk Score to Predict the Occurrence of Critical Illness in Hospitalized Patients With COVID-19](#)
 - [Interpreting Diagnostic Tests for SARS-CoV-2](#)
 - [The Disproportionate Burden of COVID-19 for Immigrants in the Bronx, New York](#)
 - [Changes in SARS-CoV-2 Positivity Rate in Outpatients in Seattle and Washington State, March 1–April 16, 2020](#)
- *medRxiv*
 - [Humoral immune response and prolonged PCR positivity in a cohort of 1343 SARS-CoV 2 patients in the New York City region](#)
- *Lancet*
 - [Triple combination of interferon beta-1b, lopinavir–ritonavir, and ribavirin in the treatment of patients admitted to hospital with COVID-19: an open-label, randomised, phase 2 trial](#)
- *International Journal of Dermatology*
 - [Chilblain-like lesions on feet and hands during the COVID-19 Pandemic](#)
- *British Journal of Dermatology*
 - [Classification of the cutaneous manifestations of COVID-19: a rapid prospective nationwide consensus study in Spain with 375 cases](#)
- *CDC Emerging Infectious Diseases*
 - [COVID-19 Outbreak Associated with Air Conditioning in Restaurant, Guangzhou, China, 2020](#)
 - [COVID-19 and Acute Pulmonary Embolism in Postpartum Patient](#)
 - [Abdominal Visceral Infarction in 3 Patients with COVID-19](#)

MMWR

- [COVID-19 in Correctional and Detention Facilities — United States, February–April 2020](#)
- [Public Health Response to COVID-19 Cases in Correctional and Detention Facilities — Louisiana, March–April 2020](#)
- [Identification and Monitoring of International Travelers During the Initial Phase of an Outbreak of COVID-19 — California, February 3–March 17, 2020](#)





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- [Preliminary Estimate of Excess Mortality During the COVID-19 Outbreak — New York City, March 11–May 2, 2020](#)
- [High SARS-CoV-2 Attack Rate Following Exposure at a Choir Practice — Skagit County, Washington, March 2020](#)

HOT OFF THE (LAY) PRESS

- *Reuters*
 - [New coronavirus spread swiftly around world from late 2019, study finds](#)
- *The Atlantic*
 - [The Problem With Stories About Dangerous Coronavirus Mutations](#)
- *The New York Times*
 - [N.Y.C. Reports 38 Cases of Virus-Related Syndrome in Children](#)
 - [Questions of Bias in Covid-19 Treatment Add to the Mourning for Black Families](#)
 - [Hoping Llamas Will Become Coronavirus Heroes](#)
 - [How Pandemics End](#)
 - [‘Scary to Go to Work’: White House Races to Contain Virus in Its Ranks](#)
 - [As Europe Reopens Schools, Relief Combines With Risk](#)
 - [As Job Losses Mount, Lawmakers Face a Make-or-Break Moment](#)
 - [Taiwan’s Weapon Against Coronavirus: An Epidemiologist as Vice President](#)
- *MedCity News*
 - [Feng Zhang’s Sherlock gets first-ever CRISPR nod as FDA green-lights Covid-19 test kit](#)
- *Vanity Fair*
 - [If 80% of Americans Wore Masks, COVID-19 Infections Would Plummet, New Study Says](#)
- *San Francisco Chronicle*
 - [Nearly 50% of state’s COVID-19 deaths are residents, staff at nursing, care homes](#)
 - [Latinos’ coronavirus burden](#)
 - [San Jose leaders push for outdoor dining to revive restaurant industry](#)

EPIDEMIOLOGY UPDATES

- **US Leads the World in Confirmed COVID-19 Cases** per [Johns Hopkins University Center for Systems Science and Engineering Dashboard Website](#)
- **California COVID-19 by the numbers** are available on the [CDPH Website](#) and the [NYT Map and Table](#) (includes data by county)
- [San Mateo County COVID-19 Dashboard](#)
- [Santa Clara County COVID-19 Dashboard](#)

ADDITIONAL COVID-19 RESOURCES:

- [COVID-19 California Statewide Case Statistics](#)
- [Palo Alto Online tracking the coronavirus](#) in San Mateo and Santa Clara counties

