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**
COVID-19 Digest Issue 3

- 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
COVID-19 Digest Issue 3

- 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