COVID-19 Digest Issue 12

July 14, 2020

CLINICAL PEARL

- COVID-19 and waning immunity: Immunity to the circulating seasonal coronaviruses that are associated with common colds is short-lived. While antibody (Ab) responses to SARS-CoV-2 can be detected in most infected individuals 10-15 days following the onset of COVID-19 symptoms, it is not known how long these Ab responses are maintained or whether they provide protection from reinfection.
  - A recent pre-print study has shown seroconversion in more than 95% of cases and neutralizing antibody (nAb) responses when sampled beyond 8 days after the onset of symptoms.
  - The magnitude of the nAb response appears to be dependent upon the disease severity. Declining nAb titers were observed during the follow-up period. Whether individuals with apparent waning immunity will have an anamnestic response when challenged with the antigen is unknown at this point.

ACADEMIC/RESEARCH PAPERS

- CDC Emerging Infectious Diseases
  - Antibody Responses to SARS-CoV-2 at 8 Weeks Postinfection in Asymptomatic Patients
- medRxiv
  - Longitudinal evaluation and decline of antibody responses in SARS-CoV-2 infection
  - Children are unlikely to have been the primary source of household SARS-CoV-2 infections
- Journal of the Pediatric Infectious Diseases Society
  - Characteristics of Hospitalized Pediatric Coronavirus Disease 2019 Cases in Chicago, Illinois, March–April 2020
- Pediatrics
  - COVID-19 in Children and the Dynamics of Infection in Families
- Nature Medicine
  - Age-dependent effects in the transmission and control of COVID-19 epidemics
- Clinical Infectious Diseases
  - Social distancing alters the clinical course of COVID-19 in young adults: A comparative cohort study
  - Use of Baricitinib in Patients with Moderate and Severe COVID-19
- New England Journal of Medicine
  - Children with Covid-19 in Pediatric Emergency Departments in Italy
  - Swabs Collected by Patients or Health Care Workers for SARS-CoV-2 Testing
  - Accelerating Development of SARS-CoV-2 Vaccines — The Role for Controlled Human Infection Models
- Cleveland Clinic Journal of Medicine
  - Clinical presentation and course of COVID-19
  - Cytokine storm and the prospects for immunotherapy with COVID-19
- AHA Journal
  - Lopinavir-ritonavir Treatment for COVID-19 Infection in Intensive Care Unit: Risk of Bradycardia
- JAMA
  - Pathophysiology, Transmission, Diagnosis, and Treatment of Coronavirus Disease 2019 (COVID-19) - A Review
  - Incidence of Stress Cardiomyopathy During the Coronavirus Disease 2019 Pandemic
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- Persistent Symptoms in Patients After Acute COVID-19
- Evolution of Altered Sense of Smell or Taste in Patients With Mildly Symptomatic COVID-19
- Treatment Recommendations for Persistent Smell and Taste Dysfunction Following COVID-19—The Coming Deluge

- JAMA Health Forum
  - Mask Exemptions During the COVID-19 Pandemic—A New Frontier for Clinicians

- The Lancet
  - Frequency of Symptoms and Asymptomatic SARS-CoV-2 Infection in New Orleans, Louisiana after 7 Weeks of a Stay-at-Home Order
  - Prevalence of SARS-CoV-2 in Spain (ENE-COVID): a nationwide, population-based seroepidemiological study
  - COVID-19 mortality in patients with cancer on chemotherapy or other anticancer treatments: a prospective cohort study

- Nature
  - OpenSAFELY: factors associated with COVID-19 death in 17 million patients

- Cell
  - Tracking changes in SARS-CoV-2 Spike: evidence that D614G increases infectivity of the COVID-19 virus

- WHO
  - Transmission of SARS-CoV-2: implications for infection prevention precautions

- BMJ Journal
  - Injection Molded Autoclavable, Scalable, Conformable (iMASC) system for aerosol-based protection: a prospective single-arm feasibility study

- Environmental Science and Technology Letters
  - Presence of SARS-Coronavirus-2 RNA in Sewage and Correlation with Reported COVID-19 Prevalence in the Early Stage of the Epidemic in The Netherlands

MMWR

- Characteristics of Persons Who Died with Coronavirus Disease 2019 (COVID-19) — United States, February 12–May 18, 2020

HOT OFF THE (LAY) PRESS

- The New York Times
  - New Cases in the U.S. Soar Past 65,000, a 7th Record in 11 Days
  - Florida reported more than 15,000 new coronavirus cases, the highest single-day total for any state — including New York — since the pandemic began.
  - Did a Mutation Help the Coronavirus Spread? More Evidence, but Lingering Questions
  - ‘I Couldn’t Do Anything’: The Virus and an E.R. Doctor’s Suicide
  - Who Gets a Vaccine First? U.S. Considers Race in Coronavirus Plans

- TED
  - The case to infect volunteers with COVID-19 to accelerate vaccine testing

- Los Angeles Times
  - A plasma shot could prevent coronavirus. But feds and makers won’t act, scientists say
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- **The Wall Street Journal**
  - Regeneron Advances Covid-19 Drug Into Later-Stage Testing
- **NBC News**
  - 'All the hospitals are full': In Houston, overwhelmed ICUs leave COVID-19 patients waiting in ER
- **Cal OES News**
  - Cal OES Provides Update on State Alternative Care Sites
- **The New Yorker**
  - How Two Waves of Coronavirus Cases Swept Through the Texas Panhandle
  - The Emotional Evolution of Coronavirus Doctors and Patients
- **PBS News**
  - This Maryland nursing home has had no coronavirus cases. How did they do it?
  - 3 things the U.S. can do to stop coronavirus
- **The Washington Post**
  - How Fauci, 5 other health specialists deal with covid-19 risks in their everyday lives
- **Cal Matters**
  - The virus and the vulnerable: Latino children suffer higher rates of COVID-19
- **MedPage Today**
  - Report: COVID-19 Transmitted to Babies in Utero—Italian researchers confirm two infections at birth
- **NPR**
  - After Reopening Schools, Israel Orders Them To Shut If COVID-19 Cases Are Discovered
- **KGW8 News**
  - 28 COVID-19 cases reported at Lake Oswego day care center
- **The Oregonian**
  - Coronavirus infections rising fastest among kids younger than 10, dimming prospects for Oregon’s school reopening plans
- **The Texas Tribune**
  - More than 300 children in Texas day cares have caught COVID-19, and the numbers are rising
- **CNN**
  - What we know about coronavirus risks to school age children
  - Medics are down to their last defense with coronavirus swamping their town
  - Pathologist found blood clots in ‘almost every organ’ during autopsies on Covid-19 patients
- **ABC News**
  - 13 states now report coronavirus testing issues, in echo of early troubles
- **Seattle Times**
  - How our sewage could warn us of future outbreaks of COVID-19
- **University of Illinois**
  - Pandemic Behind Bars: Containing COVID-19 Outbreaks in Illinois Correctional Settings
- **San Francisco Chronicle**
  - Newsom to release 8,000 prisoners in California by end of August amid coronavirus outbreaks
  - Fauci on coronavirus pandemic: ‘Worst nightmare’
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- ‘The country is facing a very serious problem,’ Fauci says as coronavirus cases soar in California, elsewhere
- Homelessness has spread beyond major Bay Area cities. COVID-19 is making it even more visible
- Coronavirus infections spike among San Francisco General Hospital workers
- If you have this blood type, studies show you’re at higher risk for the coronavirus
- Do women practice safety better than men? What we learned from first COVID-19 conference

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)
  - California COVID-19 Statewide Update as of July 13, 2020
- 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
- California Department of Corrections and Rehabilitations Population COVID-19 Tracking Dashboards
- COVID-19 Nursing Home Data
- CDPH COVID-19 Assessment and Modeling Tool