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#### **CLINICAL PEARL**

- Nasal ACE2 Levels and COVID-19 in Children:
  - While a lot of attention has been rightfully given to Multi Inflammatory Syndrome or MIS-C, the syndrome remains exceedingly rare (there have only been 250 cases reported in the United States and only one in the San Francisco Bay area so far). The overwhelming majority of children have a low risk of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection and mortality, possibly because of lower rates of enzyme angiotensin-converting enzyme 2 (ACE2) nasal epithelial gene expression in children.
  - According to <u>Bunyavanich et al</u>, ACE2 receptor nasal epithelial gene expression is greatest in adults and lowest in young children (4 to 9 years old). While ACE2 receptor nasal epithelial gene expression is higher in older children (10 to 17 years old), it is still lower than in adults. After adjusting for sex and asthma, ACE2 expression goes up with age.

### PUBLIC HEALTH UPDATE

• San Mateo County Health Officer issued a <u>revised health officer order dated July 14<sup>th</sup></u> providing guidance regarding visitation in long term care facilities.

#### RESOURCES

- Stanford Medicine Podcast
  - o Coronavirus and Children (2020) Podcast
- CDC MMWR Podcast
  - o MMWR Podcasts

#### ACADEMIC/RESEARCH PAPERS

- Pediatrics
  - o COVID-19 Disease Severity Risk Factors for Pediatric Patients in Italy
- Journal of Adolescent Health
  - o <u>Medical Vulnerability of Young Adults to Severe COVID-19 Illness—Data From the National Health</u> Interview Survey
- The Lancet
  - o <u>Intensive care admissions of children with paediatric inflammatory multisystem syndrome temporally</u> associated with SARS-CoV-2 (PIMS-TS) in the UK: a multicentre observational study
  - o <u>Potential impact of the COVID-19 pandemic on HIV, tuberculosis, and malaria in low-income and</u> middle-income countries: a modelling study
- medRxiv
  - o <u>Effect of Hydroxychloroquine in Hospitalized Patients 4 with COVID-19: Preliminary results from a 5</u> multi-centre, randomized, controlled trial
  - o Testing the association between blood type and COVID-19 infection, intubation, and death
- Annals of Hematology
  - Blood type and outcomes in patients with COVID-19
- PNAS
  - o BCG vaccine protection from severe coronavirus disease 2019 (COVID-19)





- New England Journal of Medicine
  - o An mRNA Vaccine against SARS-CoV-2 Preliminary Report
  - o Dexamethasone in Hospitalized Patients with Covid-19 Preliminary Report
- Stroke
  - Characteristics and Outcomes in Patients With COVID-19 and Acute Ischemic Stroke The Global COVID-19 Stroke Registry
- Cell Metabolism
  - o The SARS-CoV-2 Transcriptional Metabolic Signature in Lung Epithelium
- Annals of the American Thoracic Society
  - Association of Black Race with Outcomes in COVID-19 Disease: A Retrospective Cohort Study
- JAMA
  - Association Between Universal Masking in a Health Care System and SARS-CoV-2 Positivity Among Health Care Workers
  - Universal Masking to Prevent SARS-CoV-2 Transmission—The Time Is Now
  - o Airborne Spread of SARS-CoV-2 and a Potential Role for Air Disinfection
  - o Airborne Transmission of SARS-CoV-2 Theoretical Considerations and Available Evidence
  - o <u>Risk Factors Associated With Mortality Among Patients With COVID-19 in Intensive Care Units in</u> Lombardy, Italy
  - Outcomes of Universal COVID-19 Testing Following Detection of Incident Cases in 11 Long-term Care
     Facilities
  - Social Isolation—the Other COVID-19 Threat in Nursing Homes
  - Factors Associated With Death in Critically III Patients With Coronavirus Disease 2019 in the US
  - Association of Angiotensin-Converting Enzyme Inhibitor or Angiotensin Receptor Blocker Use With COVID-19 Diagnosis and Mortality
  - o Thinking of Risk in the Era of COVID-19
  - o Amabié—A Japanese Symbol of the COVID-19 Pandemic
  - o The Urgency and Challenge of Opening K-12 Schools in the Fall of 2020
- Fair Health Report
  - Key Characteristics of COVID-19 Patients
- CDC Emerging Infectious Diseases
  - o Three Patients with COVID-19 and Pulmonary Tuberculosis, Wuhan, China, January–February 2020
  - o Four Patients with COVID-19 and Tuberculosis, Singapore, April–May 2020
  - Contact Tracing during Coronavirus Disease Outbreak, South Korea, 2020
  - Coronavirus Disease Outbreak in Call Center, South Korea
  - Investigation and Serologic Follow-Up of Contacts of an Early Confirmed Case-Patient with COVID-19, Washington, USA
  - US CDC Real-Time Reverse Transcription PCR Panel for Detection of Severe Acute Respiratory
     Syndrome Coronavirus 2
  - <u>Characteristics and Outcomes of Coronavirus Disease Patients under Nonsurge Conditions, Northern</u>
     California, USA, March–April 2020
  - o The Practice of Wearing Surgical Masks during the COVID-19 Pandemic
  - Evaluating the Effectiveness of Social Distancing Interventions to Delay or Flatten the Epidemic Curve of Coronavirus Disease
  - Population-Based Estimates of Chronic Conditions Affecting Risk for Complications from Coronavirus
     Disease, United States
  - <u>Prolonged Persistence of SARS-CoV-2 RNA in Body Fluids</u>

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- SARS-CoV-2 Phylogenetic Analysis, Lazio Region, Italy, February–March
   2020
- o Decreased Influenza Incidence under COVID-19 Control Measures, Singapore
- o Collateral Benefit of COVID-19 Control Measures on Influenza Activity, Taiwan
- o Doubling Time of the COVID-19 Epidemic by Province, China
- o Estimation of Coronavirus Disease Case-Fatality Risk in Real Time
- Severe Acute Respiratory Syndrome Coronavirus 2 Transmission Potential, Iran, 2020
- o Asymptomatic SARS-CoV-2 Infection in Household Contacts of a Healthcare Provider, Wuhan, China
- o Infectious SARS-CoV-2 in Feces of Patient with Severe COVID-19
- o Pulmonary Embolism and Increased Levels of d-Dimer in Patients with Coronavirus Disease
- o COVID-19 and Acute Pulmonary Embolism in Postpartum Patient
- o Abdominal Visceral Infarction in 3 Patients with COVID-19
- o Cluster of Coronavirus Disease Associated with Fitness Dance Classes, South Korea
- o SARS-CoV-2 Transmission from Presymptomatic Meeting Attendee, Germany
- Secondary Transmission of Coronavirus Disease from Presymptomatic Persons, China

#### **MMWR**

- Absence of Apparent Transmission of SARS-CoV-2 from Two Stylists After Exposure at a Hair Salon with a
   Universal Face Covering Policy Springfield, Missouri, May 2020
- <u>Factors Associated with Cloth Face Covering Use Among Adults During the COVID-19 Pandemic United States</u>, April and May 2020
- Characteristics of Persons Who Died with COVID-19 United States, February 12–May 18, 2020

#### HOT OFF THE (LAY) PRESS

- The Economist
  - o The risks of keeping schools closed far outweigh the benefits
- The New York Times
  - Schools Beat Earlier Plagues with Outdoor Classes. We Should, Too
  - o Los Angeles and San Diego Schools to Go Online-Only in the Fall
  - Washington State Beat Back Covid-19. Now It's Rising Again.
  - o California Breaks a Record: 10,000 New Cases in a Day
  - Why You May Not Be Able to Get a Coronavirus Test in California
  - o <u>U.S. Shatters Its Record of New Coronavirus Infections as India's Caseload Hits a Million</u>
  - You're a Senior. How Do You Calculate Coronavirus Risk Right Now?
  - o How Safe Are Outdoor Gatherings?
  - o Covid-19 Risk Doesn't Depend (Much) on Blood Type, New Studies Find
  - No Bleach and Dirty Rags: How Some Janitors Are Asked to Keep You Virus-Free
  - o During Coronavirus Lockdowns, Some Doctors Wondered: Where Are the Preemies?
  - o <u>Inside Johnson & Johnson's Nonstop Hunt for a Coronavirus Vaccine</u>
  - How to Save a Half-Open Economy
  - "Let's stop this nonsense," Dr. Anthony Fauci said after public attacks from Trump aides, urging officials to focus on stopping the virus.
  - The White House is pushing to eliminate billions for coronavirus testing and tracing from a relief proposal drafted by Senate Republicans.





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- Trump Administration Strips C.D.C. of Control of Coronavirus Data:
   Hospitals have been ordered to bypass the CDC and send all patient
   information to a central database in Washington, raising questions about transparency.
- Medpage Today
  - o As COVID Data Collection Moves From CDC to HHS, Questions Mount
- CISION News
  - Covis Pharma B.V. Initiates Phase 3 Clinical Trial of Alvesco (Ciclesonide) Inhaler for the Treatment of COVID-19
- Bloomberg
  - o Covid Vaccine Front-Runner Is Months Ahead of Her Competition
- UC Davis News
  - o Your Mask Cuts Own Risk by 65 Percent
- Skilled Nursing News
  - Without a Waiver, Nursing Homes Won't Receive Point-of-Care Testing Units Under New Federal Push
- The New Yorker
  - o How Munich Turned Its Coronavirus Outbreak Into a Scientific Study
- The Daily Journal
  - San Mateo County's Goal: Stay off the state watch list
- San Francisco Chronicle
  - o Need the gym or a haircut? San Mateo County is last Bay Area holdout, but probably not for long
  - 'Absolute chaos': Bay Area businesses grapple with start-stop opening and closing
  - o Bay Area counties struggle with the surging coronavirus as economies shut back down
  - o Malls and offices to close in SF as the city lands on California's coronavirus watch list
  - o Most Bay Area schools will be blocked from reopening classrooms under Newsom order
  - o 101 inmates infected in Santa Rita Jail's largest coronavirus outbreak

#### **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 COVID-19 Statewide Update as of July 21, 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

