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June 30, 2021

CLINICAL PEARLS

• While originally thought of as potential sites for transmission, a large amount of observation and data have demonstrated that educational settings are not high-risk environments for COVID-19 spread. According to a recent BMC Infectious Diseases article, researchers from Luxembourg observed a total of 390 and 34 confirmed COVID-19 cases among 90,150 school-age children and 11,667 teachers during the summer wave when schools were open. While there were some cases of school-associated clusters, they were largely minimal. According to the authors, “[p]recautionary measures including physical distancing as well as easy access to testing, systematic contact tracing appears to have been successful in mitigating transmission within educational settings.

• Tweaking the protein structures used for vaccines can make them even more efficacious and protective against multiple variants of SARS-CoV-2. Using a mouse model, researchers publishing in Journal of Virology report that a protein-based vaccine using the spike locked into a closed formation induced strong protective antibodies against SARS-CoV-2 and variants of concern B.1.248 (Brazil) and B.1.351 (South Africa). These data demonstrate that this form of the spike protein may be a good option for future vaccine strategies.

PUBLIC HEALTH UPDATES

• American Academy of Pediatrics Statement Following CDC ACIP Meeting from Nation’s Leading Doctors, Nurses and Public Health Leaders on Benefits of Vaccination

RESOURCES

• WHO Weekly Epidemiology Update on COVID-19
• European CDC Threat Assessment Brief: Implications for the EU/EEA on the spread of the SARS-CoV-2 Delta (B.1.617.2) variant of concern
• CDC/IDSA Clinician Call: Myocarditis after COVID-19 mRNA vaccine; Plus vaccine Q&A
• IDSA
  o Podcast: When to Use Antigen Tests
  o Vaccine Education Roundtable:
    ▪ The State of Global Vaccine Equity, Part 1
    ▪ The State of Global Vaccine Equity, Part 2
• UCSF Department of Medicine COVID-19 Grand Rounds: The Delta Variant, and Lessons from the Pandemic
• Stanford Department of Medicine COVID-19 Grand Rounds: Connecting COVID-19 with Autoimmunity
• Center for Infectious Disease Research and Policy
  o Osterholm Update: COVID-19 Episode 59: Wrestling with Risk

ACADEMIC/RESEARCH PAPERS

• BMC Infectious Diseases
  o SARS-CoV-2 transmission in educational settings during an early summer epidemic wave in Luxembourg, 2020
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- New England Journal of Medicine
  - Multisystem Inflammatory Syndrome in Children — Initial Therapy and Outcomes
  - Treatment of Multisystem Inflammatory Syndrome in Children
  - Immunotherapy for MIS-C — IVIG, Glucocorticoids, and Biologics
- medRxiv
  - Rapid displacement of SARS-CoV-2 variant B.1.1.7 by B.1.617.2 and P.1 in the United States
  - Necessity of COVID-19 Vaccination in Previously Infected Individuals: A Retrospective Cohort Study
  - Brain imaging before and after COVID-19 in UK Biobank
- bioRxiv
  - High efficacy of therapeutic equine hyperimmune antibodies against SARS-CoV-2 variants of concern
- Cell
  - Profiling SARS-CoV-2 HLA-I peptidome reveals T cell epitopes from out-of-frame ORFs
- Vaccine
  - COVID-19 vaccination rates vary by community vulnerability: A county-level analysis
- JAMA
  - Association of Changes in Seasonal Respiratory Virus Activity and Ambulatory Antibiotic Prescriptions With the COVID-19 Pandemic
  - Association of Convalescent Plasma Therapy With Survival in Patients With Hematologic Cancers and COVID-19
  - Association Between Race and COVID-19 Outcomes Among 2.6 Million Children in England
  - Pediatric COVID-19 Disparities and Prioritizing Equity—Children Are Not Spared
  - Lived Experiences of Family Members of Patients With Severe COVID-19 Who Died in Intensive Care Units in France
  - Providing Family-Centered Intensive Care Unit Care Without Family Presence—Human Connection in the Time of COVID-19
  - Assessing the Association Between Social Gatherings and COVID-19 Risk Using Birthdays
  - SARS-CoV-2 Positivity and Mask Utilization Among Health Care Workers
- Nature
  - Long COVID in a prospective cohort of home-isolated patients
- Science
  - Undiagnosed SARS-CoV-2 Seropositivity During the First Six Months of the COVID-19 Pandemic in the United States
- The Lancet
  - Imatinib in patients with severe COVID-19: a randomised, double-blind, placebo-controlled, clinical trial
  - Mortality and critical care unit admission associated with the SARS-CoV-2 lineage B.1.1.7 in England: an observational cohort study
  - Risk of hospitalisation associated with infection with SARS-CoV-2 lineage B.1.1.7 in Denmark: an observational cohort study
  - SARS-CoV-2 variants and considerations of inferring causality on disease severity
- Open Forum Infectious Diseases
  - Monoclonal Antibody Therapy for COVID-19 in Solid Organ Transplant Recipients
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- **Emerging Infectious Diseases**
  - Effects of COVID-19 Vaccination Timing and Risk Prioritization on Mortality Rates, United States
  - Industry Sectors Highly Affected by Worksite Outbreaks of Coronavirus Disease, Los Angeles County, California, USA, March 19–September 30, 2020
  - Severe Acute Respiratory Syndrome Coronavirus 2 P.2 Lineage Associated with Reinfection Case, Brazil, June–October 2020
  - Genomic Evolution of SARS-CoV-2 Virus in Immunocompromised Patient, Ireland
  - Seroprevalence of SARS-CoV-2 among Blood Donors and Changes after Introduction of Public Health and Social Measures, London, UK
  - Emergence of SARS-CoV-2 B.1.1.7 Lineage at Outpatient Testing Site, Berlin, Germany, January–March 2021
  - Multiplex Real-Time Reverse Transcription PCR for Influenza A Virus, Influenza B Virus, and Severe Acute Respiratory Syndrome Coronavirus 2
  - Psychobehavioral Responses and Likelihood of Receiving COVID-19 Vaccines during the Pandemic, Hong Kong
  - COVID-19 Outbreak on a Passenger Ship and Assessment of Response Measures, Greece, 2020
  - Assessing Community Vulnerability over 3 Waves of COVID-19 Pandemic, Hong Kong, China
  - Cross-Sectional Serosurvey of Companion Animals Housed with SARS-CoV-2–Infected Owners, Italy
  - Multisystem Inflammatory Syndrome after SARS-CoV-2 Infection and COVID-19 Vaccination
  - Possible Human-to-Dog Transmission of SARS-CoV-2, Italy, 2020
  - Prolonged SARS-CoV-2 RNA Shedding from Therapy Cat after Cluster Outbreak in Retirement Home
  - Natural SARS-CoV-2 Infection in Kept Ferrets, Spain
  - SARS-CoV-2 Aerosol Exhaled by Experimentally Infected Cynomolgus Monkeys

- **Cleveland Clinic Journal of Medicine**
  - Update to coagulopathy in COVID-19: Manifestations and management
  - Pregnancy and delivery considerations during COVID-19
  - Vaccine hesitance and vaccine access in minority communities

- **ACS Nano**
  - Primary, Recall, and Decay Kinetics of SARS-CoV-2 Vaccine Antibody Responses

- **Annals of Neurology**
  - Guillain-Barré Syndrome following ChAdOx1-S/nCoV-19 Vaccine
  - Guillain-Barré syndrome variant occurring after SARS-CoV-2 vaccination

- **BMJ Journal**
  - Effect of the covid-19 pandemic in 2020 on life expectancy across populations in the USA and other high income countries: simulations of provisional mortality data
  - Plant-based diets, pescatarian diets and COVID-19 severity: a population-based case–control study in six countries

- **JAC – Antimicrobial Resistance**
  - Antibiotic prescribing for respiratory tract infection in patients with suspected and proven COVID-19: results from an antibiotic point prevalence survey in Scottish hospitals

- **American Society of Microbiology**
  - Liquid Chalk Is an Antiseptic against SARS-CoV-2 and Influenza A Respiratory Viruses

- **FAIR Health**
  - A Detailed Study of Patients with Long-Haul COVID
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MMWR

- COVID-19 Vaccination Coverage Among Adults — United States, December 14, 2020–May 22, 2021
- COVID-19 Vaccination Coverage and Intent Among Adults Aged 18–39 Years — United States, March–May 2021
- COVID-19 Surveillance and Investigations in Workplaces — Seattle & King County, Washington, June 15–November 15, 2020

HOT OFF THE (LAY) PRESS

- **White House Statements and Releases**
  - Biden–Harris Administration Announces Allocation Plan for 55 Million Doses to be Shared Globally

- **New York Times**
  - White House Says It Will Narrowly Miss July 4 Vaccination Goal
  - Anthony Fauci on the Lab Leak Theory and Emailing Mark Zuckerberg
  - High Hopes for Johnson & Johnson’s Covid Vaccine Have Fizzled in the U.S.
  - They Relied on Chinese Vaccines. Now They’re Battling Outbreaks.
  - Cuba reports a high success rate for its homegrown Abdala vaccine.

- **The Washington Post**
  - U.S. to miss July 4 vaccine goal; Fauci calls delta variant country’s ‘greatest threat’
  - Delta variant could become dominant strain in U.S. this summer, CDC head says
  - Jill Biden tours Southern states to encourage vaccination as youth cases grow
  - 153 people resigned or were fired from a Texas hospital system after refusing to get vaccinated

- **The Wall Street Journal**
  - Biden Administration to Miss June Target for Some Covid-19 Vaccine Donations
  - Medicaid Enrollment Surged During Covid-19 Pandemic, Report Shows
  - China to Keep Covid-19 Border Restrictions for Another Year
  - The Power of Natural Immunity

- **Politico**
  - Million-dollar lotteries fail to cut through vaccine apathy

- **Reuters**
  - Vaccinated Israelis may need to quarantine because of Delta variant
  - Sydney isolated as COVID-19 clusters build; NZ tightens curbs in capital
  - Up to 10,000 fans allowed at Tokyo 2020 venues, despite warnings

- **The New Yorker**
  - The Delta Variant Is a Grave Danger to the Unvaccinated
  - What Will Become of the Pandemic Pets?

- **NPR**
  - The Pandemic Led To The Biggest Drop In U.S. Life Expectancy Since WWII, Study Finds

- **AP News**
  - AP-NORC poll: Many Americans resuming pre-virus activities

- **Scientific American**
  - From $1-Million Lotteries to Free Beer: Do COVID Vaccination Incentives Work?

- **Science**
  - Monoclonal antibodies cut risk of dying from COVID-19—but only in some patients
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- **Popular Science**
  - Can a simple pill treat COVID? A new initiative from the NIH wants to find one.
  - As people unmask, other viral diseases are making a dangerous comeback

- **Platform Randomised Trial of Treatments in the Community for Epidemic and Pandemic Illnesses (PRINCIPLE) News**
  - Ivermectin to be investigated in adults aged 18+ as a possible treatment for COVID-19 in the PRINCIPLE trial

- **Science Alert**
  - A Single Shocking Statistic Reveals Why Global Herd Immunity Is Out of Reach

- **SciTechDaily**
  - New Research Reveals COVID-19 Leads to Cognitive and Behavioral Problems

- **Mercury News**
  - This bill was meant to protect California workers from COVID. These counties are using it to protect employers instead.

- **Los Angeles Times**
  - Santa Clara County had the state’s first COVID-19 rules. It just dropped its final one
  - Nursing home deaths rose by 32% in 2020 amid COVID pandemic
  - COVID-19 might shrink parts of the brain, scientists say
  - Border COVID-19 vaccination plan with U.S.-donated shots starts in Baja California

- **San Francisco Chronicle**
  - CDC panel to examine heart inflammation cases in young people after COVID vaccinations
  - FDA poised to add vaccine heart warnings for young people
  - Delta coronavirus strain is growing fast in California, with risk for unvaccinated people
  - S.F. will require all city workers to be vaccinated. Those who don’t could be fired
  - San Francisco and Los Angeles have never been closer on COVID metrics
  - I tried to get my California digital vaccine record. Here’s how it works, and what to do if it doesn’t

**Epidemiology Updates**

- **CDC COVID Data Tracker**
- US Leads the World in Confirmed COVID-19 Cases per [Johns Hopkins University Center for Systems Science and Engineering Dashboard Website](https://coronavirus.jhu.edu/)
- Johns Hopkins COVID-19 in the USA – daily summary of key data on COVID-19 in the U.S.
- California COVID-19 by the numbers are available on the [CDPH Website](https://www.cdph.ca.gov/Programs/DIV3PGM/COVID19) and the NYT Map and Table (includes data by county)
  - California COVID-19 Statewide Update as of June 30, 2021
- San Mateo County COVID-19 Dashboard
- Santa Clara County COVID-19 Dashboard

**Additional COVID-19 Resources**

- San Mateo County COVID-19 Guidance and Resources for Clinicians and Facilities – COVID-19 Digests
- Palo Alto Online tracking the coronavirus in San Mateo and Santa Clara counties
- California COVID-19 Data and Tools
- CDPH COVID-19 Assessment and Modeling Tool
- California Department of Corrections and Rehabilitations Population COVID-19 Tracking Dashboards
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- CDC Interactive Serology Dashboard for Commercial Laboratory Surveys
- Children and COVID-19: State-Level Data Report
- HHS Coronavirus Data Hub
- COVID-19 Nursing Home Data