

September 30, 2020

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CLINICAL PEARL

• The clinical presentation, laboratory and radiologic findings of children with COVID-19 differ from those of adults: A US report of 291 children with confirmed COVID-19 found that the most common symptoms were fever (56%) and cough (54%). Nearly one-third of children had gastrointestinal complaints of abdominal pain, nausea/vomiting, and diarrhea. Other non-specific symptoms included rhinorrhea, sore throat, headache, and myalgia. These figures vary greatly from adults in the same report, in whom fever and cough were reported in 71% and 80% of patients, respectively.

While adults with COVID-19 tend to have an elevated white blood cell count and elevated inflammatory markers, several studies have found that the majority of children have a normal or low white blood cell count, and normal inflammatory markers, including normal C-reactive protein, procalcitonin, and ferritin levels. This reflects the lack of immune dysregulation that is more commonly seen in adults and may provide an explanation for why children with COVID-19 tend have to mild symptoms, if any. An exception is the MIS-C presentation likely due to a dysregulated inflammatory response, which is characterized by significantly elevated inflammatory markers.

In cases of severe disease requiring hospital admission, computed tomography (CT) of the chest may prove useful. The most common CT findings in the pediatric population include unilateral and bilateral subpleural ground-glass opacities and consolidation with a surrounding halo sign. The halo sign is not routinely seen in CT images from adult patients and is suggested to be a "characteristic finding" in affected children. Many also advocate the use of lung ultrasound, especially given the fact that it is radiation-free and portable, thereby limiting patient transport within the hospital and minimizing exposure to other patients and staff. Lung ultrasound findings in children include subpleural consolidations and interstitial B lines. Improvements in these parameters are often seen on repeat ultrasound prior to discharge, suggesting that serial ultrasounds could be used in the pediatric population to monitor disease activity, treatment response and to assess recovery.

PUBLIC HEALTH UPDATES

- FDA Authorizes First Point-of-Care Antibody Test for COVID-19
- Federal Government Adjusts COVID-19 Entry Strategy for International Air Passengers

GUIDANCE/GUIDELINES

- The updated CDC <u>SARS-CoV-2 Testing Guidance</u> emphasizes the need to test asymptomatic persons, including close contacts of a person with documented SARS-CoV-2 infection
- Indicators for Dynamic School Decision-Making (CDC)
- <u>Caring for Children and Youth With Special Health Care Needs During the COVID-19 Pandemic (American Academy of Pediatrics)</u>

RESOURCES

- COVID-19 Real-Time Learning Network by IDSA and CDC
- UCSF Medicine COVID-19 Grand Rounds: In Search of a Vaccine for Covid-19: Science and Politics
- CDC/IDSA COVID-19 Clinician Call: Recognizing COVID-19 Related Myocarditis
- Developed by researchers at Johns Hopkins University School of Medicine, the <u>COVID</u>
 <u>Inpatient Risk Calculator (CIRC)</u> uses factors on admission to the hospital to predict the





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likelihood that a patient admitted with COVID-19 will progress to severe disease or death within 7 days of arrival.

ACADEMIC/RESEARCH PAPERS

- JAMA Pediatrics
 - Susceptibility to SARS-CoV-2 Infection Among Children and Adolescents Compared With Adults: A Systematic Review and Meta-analysis
 - o Frequency of Children vs Adults Carrying SARS-CoV-2 Asymptomatically
 - o Coronavirus Disease 2019 and Children—What Pediatric Health Care Clinicians Need to Know
 - o It's Time to Put Children and Young People First During the Global COVID-19 Pandemic
- Princeton, NJ: Mathematica
 - o Operating Schools in a Pandemic: Predicted Effects of Opening, Quarantining, and Closing Strategies
- The Journal of Pediatrics
 - o Community-Onset SARS-CoV-2 Infection in Young Infants: A Systematic Review
- Pediatric Blood and Cancer
 - o <u>Convalescent plasma for pediatric patients with SARS-CoV-2-associated acute respiratory distress</u> syndrome
- Science
 - o COVID-19 in children and young people
 - o Inborn errors of type I IFN immunity in patients with life-threatening COVID-19
 - o Auto-antibodies against type I IFNs in patients with life-threatening COVID-19
 - o The emergence of SARS-CoV-2 in Europe and North America
- PLoS Medicine
 - o <u>Comorbidities associated with mortality in 31,461 adults with COVID-19 in the United States: A</u> federated electronic medical record analysis
- JAMA Internal Medicine
 - o Clinical Outcomes of In-Hospital Cardiac Arrest in COVID-19
- Annals of Internal Medicine
 - o Patient Trajectories Among Persons Hospitalized for COVID-19 A Cohort Study
 - o Transmission of SARS-CoV-2: A Review of Viral, Host, and Environmental Factors
 - o <u>Eye Protection and the Risk of Coronavirus Disease 2019 Does Wearing Eye Protection Mitigate Risk in Public, Non–Health Care Settings?</u>
- JAMA
 - Association of Daily Wear of Eyeglasses With Susceptibility to Coronavirus Disease 2019 Infection
 - o In Vitro Efficacy of a Povidone-Iodine Nasal Antiseptic for Rapid Inactivation of SARS-CoV-2
 - o <u>Association of Red Blood Cell Distribution Width With Mortality Risk in Hospitalized Adults With SARS-CoV-2 Infection</u>
 - o Gastrointestinal Complications in Critically III Patients With and Without COVID-19
 - o Association of SARS-CoV-2 Test Status and Pregnancy Outcomes
- BMJ Journals
 - SARS-CoV-2 seroprevalence and asymptomatic viral carriage in healthcare workers: a cross-sectional study
- The Lancet
 - o SARS-CoV-2 antibody seroprevalence in patients receiving dialysis in the USA





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- o <u>Prevalence of SARS-CoV-2 antibodies in a large nationwide sample of</u> patients on dialysis in the USA: a cross-sectional study
- o <u>Extracorporeal membrane oxygenation support in COVID-19: an international cohort study of the Extracorporeal Life Support Organization registry</u>
- Clinical Infectious Diseases
 - o Social Disadvantage, Politics, and SARS-CoV-2 Trends: A County-Level Analysis of United States Data
- medRxiv
 - o <u>COVID-19 Transmission Dynamics and Effectiveness of Public Health Interventions in New York City</u> during the 2020 Spring Pandemic Wave
 - o <u>Trans-ethnic analysis reveals genetic and non-genetic associations with COVID-19 susceptibility and</u> severity
 - o <u>Molecular Architecture of Early Dissemination and Massive Second Wave of the SARS-CoV-2 Virus in</u> a Major Metropolitan Area
- Thrombosis Research
 - Therapeutic versus prophylactic anticoagulation for severe COVID-19: A randomized phase II clinical trial (HESACOVID)
- New England Journal of Medicine
 - o Detection of SARS-CoV-2 with SHERLOCK One-Pot Testing
- Journal of Clinical Virology
 - o Pooled Testing for Surveillance of SARS-CoV-2 in Asymptomatic Individuals
- Cochrane Systematic Review
 - o Universal screening for SARS-CoV-2 infection: a rapid review
- Endocrinology
 - o The Collision of Meta-Inflammation and SARS-CoV-2 Pandemic Infection
- European Respiratory Journal
 - o COVID-19 and Pneumothorax: A Multicentre Retrospective Case Series
- Chest Journal
 - o <u>Critically III Adults with COVID-19 in New Orleans and Care with an Evidence-based Protocol</u>
- The Annals of Thoracic Surgery
 - o Extracorporeal Membrane Oxygenation Support in Severe COVID-19
- American Journal of Hematology
 - o Marked factor V activity elevation in severe COVID-19 is associated with venous thromboembolism
- Gastroenterology
 - o <u>Prevalence, risk factors, and outcomes of hospitalized patients with COVID-19 presenting as acute</u> pancreatitis
- European Journal of Radiology
 - o Chest x-ray in the COVID-19 pandemic: Radiologists' real-world reader performance
- Molecular Psychiatry
 - o COVID-19 risk and outcomes in patients with substance use disorders: analyses from electronic health records in the United States
- Communicable Diseases Intelligence
 - o High COVID-19 attack rate among attendees of wedding events in Bali, Indonesia, March 2020
- PLoS One
 - Early estimation of the risk factors for hospitalization and mortality by COVID-19 in <u>Mexico</u>



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- o <u>The acceptance of Covid-19 tracking technologies: The role of perceived</u> threat, lack of control, and ideological beliefs
- o Covid19: Unless one gets everyone to act, policies may be ineffective or even backfire
- University of British Columbia
 - o Democratic Health Communications during Covid-19: A RAPID Response
- University of Guelph
 - o Surveillance of pets in households of persons with COVID-19 for SARS-CoV-2 infection
- Emerging Microbes and Infections
 - o A serological survey of SARS-CoV-2 in cat in Wuhan
- Emerging Infectious Diseases
 - o <u>SARS-CoV-2 in Quarantined Domestic Cats from COVID-19 Households or Close Contacts, Hong Kong,</u> China
 - o Sensitive Detection of SARS-CoV-2-Specific Antibodies in Dried Blood Spot Samples

MMWR

- Update: Characteristics of Health Care Personnel with COVID-19 United States, February 12–July 16, 2020
- <u>Disparities in COVID-19 Incidence</u>, <u>Hospitalizations</u>, and <u>Testing</u>, by Area-Level Deprivation Utah, March 3— July 9, 2020
- Multiple COVID-19 Clusters on a University Campus North Carolina, August 2020
- Recent Increase in COVID-19 Cases Reported Among Adults Aged 18–22 Years United States, May 31– September 5, 2020

HOT OFF THE (LAY) PRESS

- The New York Times
 - o Coronavirus Deaths Pass One Million Worldwide
 - o What We Know About Coronavirus Cases in K-12 Schools So Far
 - o <u>Top White House officials spent weeks pressuring the C.D.C. over the summer to downplay the risk of</u> sending children back to school.
 - o Fever Checks Are No Safeguard Against Covid-19
 - o Under 10 Percent of Americans Have Covid-19 Antibodies, Study Finds
 - o Studies Begin to Untangle Obesity's Role in Covid-19
 - o New York will conduct its own review of virus vaccines, the governor said, sowing further doubts about a federal process he said he doesn't trust.
 - o Coronavirus Vaccine Tracker
 - o <u>Two former leaders of a Massachusetts veterans' home were indicted on charges of criminal neglect</u> after 76 residents died of the virus.
 - o Stalled Talks Over Covid-19 Stimulus in the U.S. Show Signs of Life
 - o Pandemic Will 'Take Our Women 10 Years Back' in the Workplace
- New England Journal of Medicine Journal Watch
 - o Restaurants Are Hurting But Dining Indoors Poses Real COVID-19 Risk
- The Washington Post
 - o More cities and states are opening bars and restaurants despite mounting evidence of potential danger
 - New York City's shutdown reduced spread of coronavirus by 70 percent, study finds



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- Massive genetic study shows coronavirus mutating and potentially evolving amid rapid U.S. spread
- The Verge
 - o Google Maps adds an overlay of COVID-19 case trends
- Los Angeles Times
 - o Young adults are now the largest group of Americans getting COVID-19, CDC says
- CNN Health
 - o Tracking Covid-19 cases in the US
 - o 1 in 3 parents won't get flu shots for their child during Covid-19, study finds
- Pew Research Center
 - o U.S. Public Now Divided Over Whether To Get COVID-19 Vaccine
- Reuters
 - o One in 7 reported COVID-19 infections is among health workers, WHO says
 - o U.S. plans for hundreds of millions of cheap, fast COVID-19 tests
 - o Lilly says antibody drug cuts COVID-19 hospitalization, may seek emergency use nod
- Business Insider
 - o <u>5 potential coronavirus treatments have seen major advancements this month here's what the</u> new research shows
- Forbes
 - o CVS Doubles Covid-19 Test Sites While Walgreens Targets Employers
- Medscape
 - o FDA Compares Performance of COVID-19 Diagnostic Tests
 - o Experts Divided on Awake Prone Position for Severe COVID-19
- NPR/KQED
 - o COVID-19 Daily Cases On The Rise In Nearly Half Of U.S. States
 - Nearly Two-Thirds Of U.S. Households Struck By COVID-19 Face Financial Trouble
 - o A Crisis Within A Crisis: Food Insecurity And COVID-19
 - o Coronavirus FAQs: Why Can't The CDC Make Up Its Mind About Airborne Transmission?
 - o United Airlines Says It Will Offer Travelers Coronavirus Tests At The Airport
 - o Data Begin To Provide Some Answers On Pregnancy And The Pandemic
 - For Inmates With COVID-19, Anxiety and Isolation Make Prison 'Like A Torture Chamber'
 - o Cuomo Says N.Y. Health Officials Will Review Any U.S.-Approved COVID-19 Vaccine
 - Bay Area Museums Exhibit Caution in Gradual and Pending Reopenings
 - o Why Can't America Make Enough N95 Masks? 6 Months Into Pandemic, Shortages Persist
- The Hill
 - o <u>CDC director says masks more guaranteed to work than a vaccine</u>
- The Guardian
 - o Face shields ineffective at trapping aerosols, says Japanese supercomputer
- Mercury News
 - o California plans to independently vet COVID-19 vaccine data
 - o Coronavirus: California could see 89% increase in hospitalizations next month, health official warns
- San Francisco Chronicle
 - California officials predict uptick in coronavirus cases tied to Labor Day, reopening
 - o Bay Area's coronavirus numbers stabilize as U.S. death toll surpasses 200,000
 - o <u>'The surface issue has essentially gone away': Experts revise thinking on</u> coronavirus transmission





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- Two big reasons S.F. has the lowest COVID death rate among major U.S. cities
- o Another scary thing about COVID: Survivors aren't fully recovering

EPIDEMIOLOGY UPDATES

- US Leads the World in Confirmed COVID-19 Cases per Johns Hopkins University Center for Systems Science and Engineering Dashboard Website
- 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 <u>CDPH Website</u> and the <u>NYT Map and Table</u> (includes data by county)
 - o California COVID-19 Statewide Update as of September 30, 2020
- 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
- COVID-19 Nursing Home Data
- CDC Interactive Serology Dashboard for Commercial Laboratory Surveys
- CDC COVID-19 Forecasts: Deaths
- HHS Coronavirus Data Hub

