CLINICAL PEARL

- COVID-19 is known to affect multiple organ systems, including the gastro-intestinal tract. Critically ill patients with COVID-19 often develop gastrointestinal complications during their hospital stay, including transaminitis, bowel ischemia, gastrointestinal bleeding, pancreatitis, Ogilvie syndrome, and severe ileus.

Researchers from Massachusetts General Hospital compared the incidence of gastrointestinal complications in critically ill patients with COVID-19–induced acute respiratory distress syndrome (ARDS) and in comparably ill patients with non–COVID-19 ARDS. The study found a higher rate of gastrointestinal complications in critically ill patients with COVID-19 compared with propensity score–matched patients without COVID-19, suggesting a distinct phenotype for COVID-19 compared with conventional ARDS. A total of 486 patients with ARDS met eligibility criteria, of which 244 had non–COVID-19 ARDS and 242 had COVID-19 ARDS. The median age of patients was 60.5 years and 62 years for patients with and without COVID-19, respectively, and the percentage of males was 66.5% and 54.9%, respectively. Patients with COVID-19 were more likely to develop gastrointestinal complications compared with those without COVID-19 (74% vs 37%). Specifically, patients with COVID-19 developed more transaminitis (55% vs 27%), severe ileus (48% vs 22%), and bowel ischemia (4% vs 0%). Three of the 4 patients with COVID-19 and bowel ischemia were taken to the operating room and had intraoperative findings consistent with COVID-19 bowel as previously described in different patients. Pathology findings demonstrated fibrin thrombi in the microvasculature underlying areas of necrosis. High expression of angiotensin-converting enzyme 2 receptors along the epithelial lining of the gut that act as host-cell receptors for SARS-CoV-2 could explain the involvement of abdominal organs. Higher opioid requirements and COVID-19–induced coagulopathy may also explain the disproportionately high rate of ileus and ischemic bowel disease seen in critically-ill COVID-19 patients.

RESOURCES

- IDSA Podcast: From Halloween to Hanukkah: What Will Holidays Look Like During COVID-19?
- UCSF Special Medical Grand Rounds - President Trump’s Covid-19 Diagnosis: Implications for Transmission, Treatment, and Prognosis

ACADEMIC/RESEARCH PAPERS

- medRxiv
  - Repurposed antiviral drugs for COVID-19; interim WHO SOLIDARITY trial results
  - Virus detection and identification in minutes using single-particle imaging and deep learning
- International Journal of Infectious Diseases
  - Early Hydroxychloroquine but not Chloroquine use reduces ICU admission in COVID-19 patients
- JAMA
  - COVID-19 and Excess All-Cause Mortality in the US and 18 Comparison Countries
  - Excess Deaths From COVID-19 and Other Causes, March-July 2020
  - Excess Deaths and the Great Pandemic of 2020
- Blood Advances
  - The association of ABO blood group with indices of disease severity and multiorgan dysfunction in COVID-19
  - Reduced prevalence of SARS-CoV-2 infection in ABO blood group O
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- **Clinical Infectious Diseases**
  - The household secondary attack rate of SARS-CoV-2: A rapid review
  - Reinfection of SARS-CoV-2 in an immunocompromised patient: a case report
- **The Lancet**
  - Genomic evidence for reinfection with SARS-CoV-2: a case study
  - Lessons from New Zealand’s COVID-19 outbreak response
  - Scientific consensus on the COVID-19 pandemic: we need to act now
  - Clinical impact of molecular point-of-care testing for suspected COVID-19 in hospital (COV-19POC): a prospective, interventional, non-randomised, controlled study
- **Diagnostic Microbiology and Infectious Disease**
  - Comparative study of four SARS-CoV-2 Nucleic Acid Amplification Test (NAAT) platforms demonstrates that ID NOW performance is impaired substantially by patient and specimen type
- **Journal of Infection**
  - The duration of infectiousness of individuals infected with SARS-CoV-2
- **Science Immunology**
  - Persistence and decay of human antibody responses to the receptor binding domain of SARS-CoV-2 spike protein in COVID-19 patients
- **Emerging Infectious Diseases**
  - Cellular Immunity in COVID-19 Convalescents with PCR-Confirmed Infection but with Undetectable SARS-CoV-2-Specific IgG
  - Superspreading Event of SARS-CoV-2 Infection at a Bar, Ho Chi Minh City, Vietnam
  - Coronavirus Disease among Workers in Food Processing, Food Manufacturing, and Agriculture Workplaces
- **Nature Communications**
  - Analysis of SARS-CoV-2 vertical transmission during pregnancy
- **Pediatrics**
  - COVID-19 Transmission in US Child Care Programs
- **Early Human Development**
  - Holidays over: A review of actual COVID-19 school outbreaks up to September 2020
- **Infection Control and Hospital Epidemiology**
  - Prolonged incubation of SARS-CoV-2 in a Patient on Rituximab Therapy
- **Annals of the American Thoracic Society**
  - Improving Prone Positioning for Severe ARDS during the COVID-19 Pandemic: An Implementation Mapping Approach
- **Critical Care**
  - Awake prone positioning does not reduce the risk of intubation in COVID-19 treated with high-flow nasal oxygen therapy: a multicenter, adjusted cohort study
- **Rheumatology**
  - Baricitinib improves respiratory function in patients treated with corticosteroids for SARS-CoV-2 pneumonia: an observational cohort study
- **National Institute for Health Research**
  - Living with Covid Themed Review
- **BMJ Journals**
  - Sudden irreversible hearing loss post COVID-19
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- **Genetics in Medicine**
  - *Individuals with Down syndrome hospitalized with COVID-19 have more severe disease*

- **Diabetologia**
  - *Antibody response to multiple antigens of SARS-CoV-2 in patients with diabetes: an observational cohort study*

- **JAMA Ophthalmology**
  - *Severe Acute Respiratory Syndrome Coronavirus 2 Nucleocapsid Protein in the Ocular Tissues of a Patient Previously Infected With Coronavirus Disease 2019*

- **Academic Emergency Medicine**
  - *Increased Incidence of Acute Pulmonary Embolism in Emergency Department Patients During the COVID-19 Pandemic*

- **Internal and Emergency Medicine**
  - *Clinical characteristics and outcomes in elderly with coronavirus disease 2019 in Beijing, China: a retrospective cohort study*

- **PNAS**
  - *Experimental infection of domestic dogs and cats with SARS-CoV-2: Pathogenesis, transmission, and response to reexposure in cats*

- **United States Transportation Command (USTRANSCOM) & Air Mobility Command (AMC)**
  - *TRANSCOM/AMC Commercial Aircraft Cabin Aerosol Dispersion Tests*

**MMWR**

- *Transmission Dynamics by Age Group in COVID-19 Hotspot Counties — United States, April–September 2020*
- *Race, Ethnicity, and Age Trends in Persons Who Died from COVID-19 — United States, May–August 2020*
- *Factors Influencing Risk for COVID-19 Exposure Among Young Adults Aged 18–23 Years — Winnebago County, Wisconsin, March–July 2020*
- *An Outbreak of COVID-19 Associated with a Recreational Hockey Game — Florida, June 2020*
- *Demographic Characteristics, Experiences, and Beliefs Associated with Hand Hygiene Among Adults During the COVID-19 Pandemic — United States, June 24–30, 2020*

**HOT OFF THE (LAY) PRESS**

- **Science**
  - *Remdesivir and interferon fall flat in WHO’s megastudy of COVID-19 treatments*

- **The New York Times**
  - *Remdesivir Fails to Prevent Covid-19 Deaths in Huge Trial*
  - *White House embraces a declaration from scientists that opposes lockdowns and relies on ‘herd immunity.’*
  - *‘We are headed in the wrong direction’: The U.S. records its highest tallies since July*
  - *London tightens restrictions as a second wave of virus cases washes over Europe.*
  - *France extends virus rules to the entire country as new cases threaten to overwhelm hospitals.*
  - *Coronavirus Confusion: Colts Report False Positives and Patriots Call Off Practice*
  - *As the Coronavirus Surges, a New Culprit Emerges: Pandemic Fatigue*
  - *What to Know About California’s New Rules for Gathering*
  - *Migrant Workers Restricted to Farms Under One Grower’s Virus Lockdown*
  - *Did Lockdowns Lower Premature Births? A New Study Adds Evidence*
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- Latino and Black Americans are still dying in disproportionately high numbers, the C.D.C. says.
- ‘I Feel Like I Have Dementia’: Brain Fog Plagues Covid Survivors
- Pfizer confirms it won’t seek authorization for its vaccine before the second half of next month
- Governors Ask How Vaccines Will Be Distributed

- The Hill
  - Bipartisan governors ask Trump for help with COVID vaccine distribution plan
  - Loss for everyone as CDC’s standing erodes

- Propublica
  - Inside the Fall of the CDC

- IDSA News
  - “Herd Immunity” is Not an Answer to a Pandemic

- Pfizer
  - OUR PROGRESS IN DEVELOPING A POTENTIAL COVID-19 VACCINE

- Reuters
  - Pfizer to enroll kids as young as 12 in COVID-19 vaccine study
  - J&J says review of illness that led to pause of coronavirus vaccine trial could take days
  - YouTube bans coronavirus vaccine misinformation
  - U.S. pauses Eli Lilly trial of antibody drug Trump touted as COVID-19 ‘cure’ over safety concern
  - Eli Lilly says other COVID-19 antibody drug trials ongoing after study halted for safety concern

- MedPage Today
  - COVID-19 Antibodies Raise Unanswered Clinical Questions

- NPR/KQED
  - Facing Many Unknowns, States Rush To Plan Distribution Of COVID-19 Vaccines
  - Trump Announces Partnership With CVS, Walgreens For Nursing Home COVID Vaccination
  - More Companies Are Using Technology To Monitor For Coronavirus In The Workplace
  - ‘I’m Still Unemployed’: Millions In Dire Situation As Savings Start To Run Out
  - What’s Coming This Winter? Here’s How Many More Could Die In The Pandemic
  - How Bad Will Coronavirus Be This Winter? Model Projects 170,000 More U.S. Deaths
  - Coronavirus Test Results Get Faster, But Still Too Slow To Help Slow Disease Spread

- University of Oxford News
  - Oxford scientists develop extremely rapid diagnostic test for Covid-19

- Time
  - At-Home Saliva Tests for COVID-19 Could Be Coming Soon

- Bloomberg
  - Illumina and IDbyDNA Launch DNA Test That May Find Next Epidemic
  - Rapid New Covid-19 Test From Access Bio Cleared in U.S.
  - Starbucks Cafe’s Covid Outbreak Spared Employees Who Wore Masks

- BBC News
  - Covid: One-way ‘travel bubble’ opens between Australia and NZ

- The Wall Street Journal
  - Can Airport Covid Testing Get People Flying Again?

- The Washington Post
  - Defense Department study finds low risk of coronavirus infection through air on a packed airline flight
  - These U.S. airlines are offering pre-flight covid-19 testing – for a price
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- U.S. tops 60,000 daily coronavirus infections for first time since early August
- Coronavirus cases hit records in Europe, surpassing U.S. numbers
- Young and healthy? You may have to wait until 2022 for a covid-19 vaccine, experts warn.
- Trying to reach herd immunity is ‘unethical’ and unprecedented, WHO head says
- Trump again attacks Fauci’s guidance as coronavirus infections tick upward
- A pandemic pod could help you get through winter, experts say. Here’s how to form one.
- With video calls and an army of volunteers, this 15-year-old is battling pandemic loneliness in nursing homes

- WebMD
  - Small Household Gatherings Driving COVID Increase
- USA Today
  - COVID-19 cases in US grow at a speed not seen since July, the summer peak
- Nature News
  - What it’s really like to do science amid COVID-19
- STAT News
  - Results are coming in on the AI systems built at the height of New York City’s spring Covid-19 outbreak
  - STAT-Harris Poll: The share of Americans interested in getting Covid-19 vaccine as soon as possible is dropping
  - Pfizer won’t apply for Covid-19 vaccine authorization before mid-November, CEO confirms
- Mercury News
  - Eight months in, California is containing COVID-19 as other states spike. Here’s why.
  - Kaiser Permanente cited for failing to treat COVID-19 as airborne
- SF Gate
  - Stanford professor’s anti-lockdown movement faces fierce resistance
- San Francisco Chronicle
  - Gilroy nursing home reports 12 coronavirus deaths, 75 infections
  - Google expands S.F. office despite shift to working from home during pandemic
- KRON4
  - Marin Catholic suspends hybrid learning for 2 weeks

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 CDPH Website and the NYT Map and Table (includes data by county)
  - California COVID-19 Statewide Update as of October 21, 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