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### 2020-05-16/17 DAILY UNM GLOBAL HEALTH COVID-19 BRIEFING

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## DAILY UNM GLOBAL HEALTH COVID-19 BRIEFING

May 16-17, 2020

### Executive Summary

Only 1 case in NM state prisons. NM case count. NM travel warning. NM web-based recovery reporting system. NM Mask Madness Tournament. Face covering in ABQ. NM graduate medical program funding. ABQ Memorial Day cancellation. NM affordable housing funding. Taos farmers market drive through opening. US correctional facility cases. Social distancing works. Dogs sniffing out COVID-19. Germany's soccer league to restart. Mask effectiveness. Mask comfort w/cardboard cutout. Ammonium cleaning ineffective. CDC contact tracing guidance. Spanish immunity. CDC epidemic intelligence fellowship. Speaking transmits virus. Decontaminating workers. CDC advisory for children. Addressing ER fears. Indoor presymptomatic virus transfer. Virus transmission of currency. Safety advice for reopening. Lessons learned from universities. Dutch safe sex guidelines for singles. Recommendations are given on invasive management of acute coronary syndrome, onco-gynecologic surgery, endoscopy, hemodialysis, on resuming orthopedic surgery, clozapine monitoring, starting ADHD medications, orthodontics, and scaling up virtual services. At-home sample collection kit. Hydroxychloroquine no benefit. Tocilizumab reduces mortality rate. Calcium channel blockers beneficial. COVID-19 opinion/review vs. primary research. Disease severity and biomarkers. Concomitant liver injury. Gastrointestinal and liver involvement. Diabetes mortality. High incidence venous thrombosis. Monitoring global emotions with twitter.

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### NM Highlights

- [NM state prisons see only 1 positive test amongst almost 4,000](#)  
On Friday (5/15), the State Corrections Department announced 1 positive case out of 3,954 tests conducted in the state prisons, which included both staff and inmates. The low testing rate was attributed to early action taken by state officials. Skepticism of the results has arisen due to discrepancies in reported testing counts. A private prison in NM has 24 cases.
- [NM reports 6 more COVID-19 deaths and 97 additional cases on May 17 according to partial report](#)  
As of today (5/17), the total positive cases and total deaths in the state are 5,938 and 265, respectively. The state has performed 133,253 tests, there are 211 individuals currently hospitalized for COVID-19, and 1,755 COVID-19 cases have recovered. [NMDOH portal featuring epidemiologic breakdown of cases](#).
- [NM health officials warn against travel as bordering states reopen](#)  
The Human Services Secretary explained that as surrounding states lift restrictions and businesses open, the risk for spread increases. Cases continue to climb in border cities like El Paso. The Las Cruces mayor urged residents to stay home and shop local to reduce transmission.
- [State working towards web-based system to better report COVID-19 recoveries](#)  
NM Cabinet Secretary for Health and Human Services Department, Dr. David Scrase says if people go seven days symptoms,

state epidemiologists can record them as recovered. He says the state is working to update its system of contact tracing to create a digital database with automated check-in reminders instead of health officials having to individually transcribe information for each patient, then type it into a computer.

- [NM launches Mask Madness Tournament](#)

The governor invites all residents to participate in the statewide competition to highlight the state's creativity and artistic ability amidst the pandemic. Participants may submit a photo of their face mask or covering [here](#). Voting begins May 26th. The top vote-getters will be seeded into brackets where New Mexicans can vote for their favorites. The winner will receive a prize.

- [Governor's order requiring face coverings in public appeared to be a success in ABQ](#)

In most places around the city, the majority of people donned a mask of some sort, with some shop owners and shoppers in support of the policy. A few seemed upset by the policy and the shutdowns, in general.

- [Three NM graduate medical programs to receive \\$1 million, adding 36 physicians to state's workforce](#)

The Graduate Medical Education Expansion Grant Program is to fund graduate medical programs seeking to increase the number of first-year residents and will allow the awarded programs to take on 3-4 new residency positions each year. The awarded programs are Burrell College of Osteopathic Medicine (Las Cruces) for family medicine, the Memorial Medical Center (Las Cruces) for general psychiatry, and the Rehoboth McKinley Christian Health Care Services (Gallup) for general psychiatry with a focus on behavioral health in the local Native American community.

- [Memorial Day ceremony canceled because of COVID-19 pandemic](#)

The amphitheater at the New Mexico Veterans Memorial will be empty this year on the holiday Monday because of the COVID-19 pandemic. The threat of coronavirus forced the cancellation of the annual ceremony. Some activities could be planned as a buildup to the Veterans Day ceremony held at the memorial amphitheater in November.

- [New Mexico to get \\$5.5 million for affordable housing](#)

The U.S. Department of Housing and Urban Development is awarding public housing authorities across New Mexico more than \$5.5 million in grants. The funding will be aimed at increasing access to affordable housing in hopes of keeping more New Mexicans in their homes during the coronavirus pandemic.

- [Taos farmers market opens with drive through on the historic Taos Plaza](#)

Shoppers lined up in their vehicles at the east entrance of the Taos Plaza at 8 a.m. Saturday (May 16) and within an hour all 100 paper bags of presorted and packaged produce had sold, according to market manager Sierra Heberg. While the farmers market is considered among the essential businesses, it still needed to comply with some of the health orders, such as social distancing and a prohibition on large groups of people.

## US Highlights

- [COVID-19 in correctional and detention facilities - United States, February-April 2020](#)

During April 22-28, 2020, aggregate data on COVID-19 cases were reported to CDC by 37 of 54 state and territorial health department jurisdictions. Thirty-two (86%) jurisdictions reported at least one laboratory-confirmed case from a total of 420 correctional and detention facilities. Among these facilities, COVID-19 was diagnosed in 4,893 incarcerated or detained persons and 2,778 facility staff members, resulting in 88 deaths in incarcerated or detained persons and 15 deaths among staff members.

- [Social distancing measures in The United States reduced the COVID-19 growth rate](#)

The authors evaluated the impact of distancing measures on the growth rate of confirmed COVID-19 cases across US counties between March 1, 2020 and April 27, 2020. An event-study design allowed each policy's impact on COVID-19 case growth to evolve over time. Adoption of government-imposed social distancing measures reduced the daily growth rate by 5.4 percentage points after 1-5 days, 6.8 after 6-10 days, 8.2 after 11-15 days, and 9.1 after 16-20 days. Holding the amount of voluntary social distancing constant, these results imply 10 times greater spread by April 27 without SIPOs (10 million cases) and more than 35 times greater spread without any of the four measures (35 million).

## International Highlights

- [UK funds research to test dogs' ability to sniff out COVID-19](#)  
Britain's government has given 500,000 pounds (606,000 USD) towards the research. 6 dogs - Labradors and Cocker Spaniels – will be given samples of the odor of COVID-19 patients and taught to distinguish their smell from that of people who are not infected. If successful, an individual dog could check up to 250 people an hour and be used in public spaces and airports.
- [Germany's Bundesliga restarts season](#)  
After achieving a dramatic decrease in the number of new COVID-19 cases in the country, Germany's Bundesliga has become the first top international soccer league to return to the pitch after suspending its season due to the coronavirus pandemic in early March. The league restarted its season with a slate of six matches on Saturday, playing on empty stadiums, with substitute players wearing masks and virtual press conferences.

## Economics, Workforce, Supply Chain, PPE Highlights

- [Disinfection and sterilization of masks for reuse and assessment of mask effectiveness](#)  
*Safety Science:* This literature review shows that the most promising methods are those that use hydrogen peroxide vapor, ultraviolet radiation, moist heat, dry heat and ozone gas. Soapy water, alcohol, bleach immersion, ethylene oxide, ionizing radiation, microwave, high temperature, autoclave or steam are not fully recommended. Regarding the effectiveness of surgical masks compared to PPE, the former has been seen to be slightly less effective than PPE. The effectiveness of homemade or non-certified masks is very low.
- [Cardboard cutout at back of head to increase compliance of face mask wear](#)  
The authors propose an innovative use of a cardboard cut-out to increase compliance and safety of masks. Take a 5-ply rectangular cardboard of size 15x8 cm approximately, make four “V” shape grooves depending on size of head and mask. Adjust the elastic cords in the cardboard grooves and put on the mask by placing it over the back of head.
- [Common ammonium cleaner compound benzalkonium chloride not effective for coronavirus](#)  
According to the CDC, best practices to slow the spread rely on good hand hygiene, including proper handwashing practices as well as the use of alcohol-based hand sanitizers. However, they provide warning against sanitizing products containing benzalkonium chloride (BAC), which has sparked concern in both the scientific community as well as the general public as BAC, a common quaternary ammonium compound (QAC), is ubiquitous in soaps and cleaning wipes as well as hospital sanitation kits. This viewpoint aims to highlight the outdated and incongruous data in the evaluation of BAC against the family of known coronaviruses and points to the need for further evaluation of the efficacy of QACs against coronaviruses.

## Epidemiology Highlights

- [Updated CDC guidance for contact tracing](#)  
The [May 15 updated document](#) aims to provide a foundation for state, territorial, local, and tribal development of case investigations and contact tracing plans. Guidelines are provided for scaling up staffing roles; conducting case investigation and contact tracing activities; outbreak management; special considerations; building community support; data management; success evaluation; confidentiality and consent; support services; and digital contact tracing tools.
- [Large scale Spanish study on Covid-19 immunity – 5% antibodies – risks of lifting distancing restrictions](#)  
In a well-designed large-scale study of antibody presence among Spanish population carried out by the Carlos III Institute for Health and Spain's National Statistics Institute, researchers were able to obtain samples from more than 36,000 randomly selected households across the country. Preliminary results from the survey suggest that even as the Spanish outbreak exploded and then was brought under control, only 5 percent of the country's population has been infected with the coronavirus so far. This means that the vast majority of the Spanish population remains susceptible to infection if the lifting of restrictions there leads to a new spike in cases. The message to the rest of the world is that as awful as the pandemic has been in Spain — where more than 27,000 people have died, a far higher per-capita death rate than in the US or even Italy — it is not even close to an upper limit on how bad things can get if the social distancing restrictions are lifted.

- [CDC to offer 2-year Epidemic Intelligence Service Fellowship training -- apply before June 12](#)  
Multi-stage interview process leads to selection for 2-year fellowship starting July 2021 with CDC in Atlanta. Applications open to physicians, veterinarians, nurses, PhD scientists with public health background, and other healthcare professionals.
- [Speaking likely causes airborne virus transmission](#)  
*PNAS*: Highly sensitive laser light scattering observations have revealed that loud speech can emit thousands of oral fluid droplets per second. In a closed, stagnant air environment, they disappear from the window of view with time constants in the range of 8 to 14 min, which corresponds to droplet nuclei of ca. 4- $\mu\text{m}$  diameter, or 12- to 21- $\mu\text{m}$  droplets prior to dehydration. These observations confirm that there is a substantial probability that normal speaking causes airborne virus transmission in confined environments.

## Healthcare Policy Recommendations

- [Decontamination framework for COVID-19 front-line workers returning home](#)  
Scientific evidence, agency guidelines, and best practices from workers in the field are summarized in recommendations for staff returning from work.
- [CDC issues emergency health advisory on severe coronavirus illness in children](#)  
An emergency health advisory released by CDC is asking physicians to report people under 21 with a fever lasting more than one day and have simultaneous inflammation and serious diseases that affect two or more organs and require hospitalization. The agency calls the condition a Multisystem Inflammatory Syndrome in Children, or MIS-C. New Jersey also reports more than a dozen cases, and a handful of others have been documented across several other states, including California, Washington, Connecticut, Ohio and Georgia. CDC recommends that any patients who meet the case definition are reported to the local, state, and regional health departments to increase awareness of the risk factors, pathogenesis, clinical process, and treatment of this syndrome.
- [Addressing Covid-19 fear to encourage sick patients to seek emergency care](#)  
An article in NEJM describes how leaders at a 150-bed community hospital in California partnered with a collective of human-centered designers to rapidly address a sudden drop in emergency department visits after a statewide stay-at-home order was issued. The initiative developed targeted messaging to assuage fears about safety and to remind patients not to ignore heart and stroke symptoms.
- [Indoor presymptomatic virus transfer](#)  
As stay at home restrictions are lifted, it is important to understand transmission dynamics and effective measures to mitigate risk, especially in indoor environments such as schools and offices. The model used shows that frequent hand washing, social distancing and surface cleaning is as effective at preventing virus transmission as wearing a mask and gloves.
- [Cash, currency sources of COVID-19 virus transmission](#)  
Banknotes and coins should be considered as potential sources of transmission of the novel SARS-CoV-2. Further laboratory stimulation data might help resolve the issues. Until then, handling of cash and coins should be done with utmost precaution; cashless and contactless transactions using online banking and digital wallets should be pursued wherever possible.
- [Safety advice for reopening: how to reduce your risks as coronavirus lockdowns ease](#)  
In a Wall Street Journal article, public health experts offer personal guidance on venturing out of the lockdown regarding commuting, office work, outdoor exercise, visits at the retail stores, gyms, and hair salons.
- [Study shares lessons learned from public universities' response to COVID-19 pandemic](#)  
A study in a manuscript under peer-review examines how and when public universities responded to the U.S. COVID-19 outbreak. Data were collected on decision-making for medium to large public universities with more than 5,000 enrolled students, representing 412 institutions, 7M people, and all 50 states and Puerto Rico, between February 27 and March 31st, 2020. Universities decisions were largely not coordinated by government agencies. Importance of synchronizing university decisions in a national emergency scenario cannot be understated. Dissonant university decisions and announcement dates may potentially lead to mixed messaging and reduction of effectiveness of early interventions. Clear guidance is needed

moving forward regarding university operations for fall and summer.

- [Dutch safe sex guidelines for singles](#)

The Dutch National Institute for Public Health and the Environment has released guidelines for single people to avoid spreading the virus. Guidelines include limiting intimate contact to one person, and to limit physical contact with people outside of the intimate pairing. Guidelines also encourage the avoidance of intimate contact with partners who are suspected of being sick.

## Practice Guidelines

- [EAPCI position statement on invasive management of acute coronary syndrome](#)

European Association of Percutaneous Cardiovascular Interventions (EAPCI) and Acute Cardiovascular Care Association (ACVC) provide diagnostic and treatment algorithms to adapt evidence-based protocols for patients with a diagnosed or suspected COVID-19, presenting with ST- and non-ST-segment elevation acute coronary syndrome (ACS). There is a need for re-organization of ACS networks, with redistribution of hub and spoke hospitals, as well as for in-hospital reorganization of ER and cardiac units, with examples coming from multiple European countries. A guidance is provided to reorganization of catheterization labs and measures for protection of healthcare providers involved with invasive procedures.

- [Onco-gynecologic surgery during COVID-19 pandemic](#)

FRANCOGYN, SCGP, SFCO, and SFOG societies provide their recommendations. Whenever possible, cancer-specific diagnostic or treatment guidelines should be applied without delay. The following precautions can be taken during chemotherapy: 1) Do not treat patients who tested positive for COVID-19; 2) Telephone patients in advance to check for symptoms and check again when the patient arrives for their appointment; 3) Increase the use of granulocyte colony stimulating factor; 4) Cancel all non-essential weekly chemotherapy sessions to prevent repeat visits; 5) Adjust palliative chemotherapy treatments; 6) Implement social distancing measures in waiting room. A separate circuit should be created for cancer patients with COVID-19 whose surgery cannot be postponed. Pre-operative PCR screening is recommended.

- [Italian recommendations on endoscopy during COVID-19](#)

Italian Society of Digestive Endoscopy provides recommendations on the use of PPE, the correct way of dressing and undressing of endoscopists and nurses before and after digestive endoscopy procedures.

- [Korean guidelines for preventing transmission of COVID-19 in hemodialysis facilities](#)

The joint committee of the Korean Society of Nephrology and the Korean Society of Dialysis Therapy provides practice guidelines to prevent secondary transmission of COVID-19 within hemodialysis facilities. The areas of infection control covered include standard precautions, performing dialysis therapy for confirmed or suspected cases, performing cohort isolation for contact patients, and disease monitoring and contact surveillance.

- [European guidelines on resuming elective orthopedic surgery](#)

European Society of Sports Traumatology, Knee Surgery and Arthroscopy recommends on resuming elective orthopedic surgery. Elective surgery should be performed in COVID-free facilities and hospital stay should be as short as possible. Patients considered first for surgery should be carefully selected according to COVID infection status/exposure, age, ASA physical status classification system / risk factors, socio-professional situation and surgical indication. A strategy for resuming elective surgery in four phases is proposed. Preoperative testing for COVID-19 infection is highly recommended. COVID symptoms should be monitored until the day of surgery. Elective surgery should be postponed with the slightest suspicion of a COVID-19. In case of surgery, adapted PPE is highly recommended.

- [International guidelines on resuming elective orthopedic surgery](#)

The guidelines were developed by the International Consensus Group (ICM). All patients should be screened for SARS-CoV-2 by means of a thorough history and physical examination, as well as reverse transcription-polymerase chain reaction (RT-PCR) testing whenever possible, prior to undergoing elective surgery. Patients who are currently infected with COVID-19 should not undergo elective surgery. These and other recommendations are given.

- [Recommendations for antipsychotic Clozapine treated patients during COVID-19 pandemic](#)  
Given the risks of neutropenia within the first 18 weeks, attempts to obtain absolute neutrophil count values for REMS (FDA clozapine Risk Evaluation and Mitigation Strategy) reporting should still be attempted during the COVID-19 pandemic. Although the REMS program in the US requires weekly testing for the first 26 weeks, clinical decisions to safely defer a blood draw could be considered after 18 weeks if needed due to COVID-19 barriers patients consent with discussion of the signs and symptoms of infection such as fever, cough, sore throat, and headache. A patient's access or ability to obtain a thermometer is important. If patients call with symptoms of infection, whether due to suspected neutropenia or COVID-19, they should contact a healthcare worker as soon as possible for further guidance. Other practical considerations include assessing changes to smoking, caffeine habits, activity, and diet which may alter clozapine metabolism or affect gastrointestinal motility.
- [Starting ADHD medications during the COVID-19 pandemic: recommendations](#)  
European ADHD Guidelines Group recommends to start pharmacological treatment if the 3 conditions are satisfied: 1) no personal history of shortness of breath on exertion compared with peers; fainting on exertion or in response to fright or noise; excessive palpitations, breathlessness or syncope or palpitations that are rapid, regular, and start and stop suddenly; chest pain suggesting cardiac origin; or any previously documented hypertension, congenital heart abnormality, previous cardiac surgery, or underlying condition that increases the risk of having a structural cardiac disorder; 2) no family history of early (<40 years) sudden death in a first-degree relative suggesting cardiac disease; 3) the patient must have baseline cardiovascular parameters monitoring before drug initiation.
- [Recommendations for orthodontic settings: a review](#)  
The review emphasizes minimizing aerosol production and reinforcing strict infection control measures. Compliance with highest level of personal protection and restriction of treatment to emergency cases is recommended during the outbreak. Surface disinfection, adequate ventilation, and decontamination of instruments and supplies is required.
- [Coping with COVID-19: scaling up virtual care to standard practice](#)  
NATURE: The authors describe how they ramped up video consultation over the course of 4 days to increase their ability to deliver routine medical care over video conferencing. The hospital acquired extra iPads and video conferencing licenses, increased testing of the software needed to do switch, had trained staff to answer questions, and integrated the videoconference into the EHR.

## Testing

- [FDA authorizes standalone at-home sample collection kit](#)  
The U.S. Food and Drug Administration has authorized an at-home sample collection kit that can then be sent to specified laboratories for COVID-19 diagnostic testing. This announcement follows two recent authorizations for diagnostic tests that also use at-home specimen collection: [one](#) that uses a sample collected from the patient's nose with a nasal swab and transported in saline and [another](#) that permits testing of a saliva sample collected by the patient at home.

## Drugs, Vaccines, Therapies, Clinical Trials

- [Small, open-label RCT finds no benefit to hydroxychloroquine use](#)  
Researchers from China report in the British Medical Journal an open-label RCT of 150 mainly mild-moderate patients that found no statistically significant benefit for hydroxychloroquine (HCQ) on viral clearance at 28 days. 30% of patients in the HCQ group had adverse events vs 9% in the control group. No serious adverse events were reported. The authors note that the study had 150 out of the 300 patients they planned to recruit.
- [Tocilizumab decreases mortality rate and improves clinical course in patients in respiratory failure](#)  
An article published in the European Journal of Internal Medicine by Italian researchers reports the results of a retrospective cohort study of 85 patients in respiratory failure not requiring mechanical ventilation. 23 of the patients received standard of care (SOC) and 62 of them received SOC + tocilizumab. The results show decreased mortality and improved clinical course in



patients receiving tocilizumab. Daily hazard ratio of death was 0.035 (95% CI, 0.004 to 0.347;  $p = 0.004$ ). The overall mortality rate of patients receiving tocilizumab v SOC was 8% v. 58%. 64.8% of the patients receiving tocilizumab had an improved clinical course and 27% worsened, whereas 100% of controls worsened and needed mechanical ventilation.

- [Benefits of nifedipine and amlodipine in elderly patients hospitalized for COVID-19](#)

A retrospective chart review study showed that patients treated with a calcium channel blocker (CCB) were significantly more likely to survive than those not treated with a CCB ( $P < .01$ ;  $p = 0.0036$ ). CCB patients were also significantly less likely to undergo intubation and mechanical ventilation ( $P < .01$ ;  $p = 0.0026$ ). Nifedipine and amlodipine were found to be associated with significantly improved mortality and a decreased risk for intubation and mechanical ventilation in elderly patients hospitalized with COVID-19.

## Other Science

- [COVID-19 literature skewed towards opinion/review \(69%\) vs primary research \(31%\)](#)

Systematic review: opinion and rehashing of others research dramatically outweighs primary research. The highest impact journals had the highest proportion of opinion, with more primary research published in the lower impact journals. A team of 6 reviewers had 100% classification concordance, finding only 1 out of 1741 PubMed articles was a randomized controlled trial in the period from 12/1/2019-3/31/2020.

- [Predicting disease severity with biomarkers, evaluation of some antivirals: meta-regression analysis](#)

In a meta-regression analysis, ICU admission was predicted by raised leukocyte count ( $p < 0.0001$ ), raised alanine aminotransferase ( $p = 0.024$ ), raised aspartate transaminase ( $p = 0.0040$ ), elevated lactate dehydrogenase (LDH) ( $p < 0.0001$ ) and increased procalcitonin ( $p < 0.0001$ ). ARDS was predicted by elevated LDH ( $p < 0.0001$ ), while mortality was predicted by raised leukocyte count ( $p = 0.0005$ ) and elevated LDH ( $p < 0.0001$ ). Treatment with lopinavir-ritonavir showed no significant benefit in mortality and ARDS rates. Corticosteroids were associated with a higher rate of ARDS ( $p = 0.0003$ ).

- [The role of biomarkers in COVID-19 diagnosis: systematic review](#)

The following biomarkers were reviewed: C-reactive protein, serum amyloid A, interleukin-6, lactate dehydrogenase, neutrophil-to-lymphocyte ratio, D-dimer, cardiac troponin, renal biomarkers, lymphocytes and platelet count. Of these, all but two, showed significantly higher levels in patients with severe complications of COVID-19 infection compared to their non-severe counterparts. Lymphocytes and platelet count showed significantly lower levels in severe patients compared to non-severe patients.

- [COVID-19, MERS and SARS with concomitant liver injury: systematic review](#)

A systematic review of 43 studies was performed on the prevalence of hepatic impairments and their clinical course in SARS and MERS *Coronaviridae* infections. Liver anomalies were predominantly mild to moderately elevated transaminases, hypoalbuminemia and prolongation of prothrombin time. Histopathology varied between non-specific inflammation, mild steatosis, congestion and massive necrosis.

- [Gastrointestinal and liver involvement associated with more severe disease course: meta-analysis](#)

*Lancet*: The literature review showed that 29 studies ( $n = 6064$ ) positive patients reported gastrointestinal symptoms at diagnosis. The pooled prevalence of digestive symptoms was 15% (10-21; range: 2-57;  $I(2) = 96\%$ ). The pooled prevalence of abnormal liver functions (12 studies,  $n = 1267$ ) was 19% (9-32; range 1-53;  $I(2) = 96\%$ ). Patients with severe cases had higher rates of gastrointestinal symptoms (odds ratio [OR] 1.60 [95% CI 1.09-2.36];  $p = 0.0020$ ;  $I(2) = 44\%$ ) and liver injury (2.20 [1.60-3.02];  $p < 0.00001$ ;  $I(2) = 36\%$ ) compared with those with non-severe disease. 10% (95% CI 4-19) of patients presented with gastrointestinal symptoms alone without respiratory features.

- [Diabetes mellitus associated with mortality and severity of COVID-19: meta-analysis](#)

Diabetes was significantly associated with mortality with a pooled odds ratio of 1.90 (95% CI: 1.37-2.64;  $p < 0.01$ ). Diabetes was also associated with severe COVID-19 with a pooled odds ratio of 2.75 (95% CI: 2.09-3.62;  $p < 0.01$ ). The combined corrected pooled odds ratio of mortality or severity was 2.16 (95% CI: 1.74-2.68;  $p < 0.01$ ). The pooled prevalence of diabetes in patients with COVID-19 was 9.8% (95% CI: 8.7%-10.9%) (after adjusting for heterogeneity).

- [Extremely high incidence of lower extremity deep venous thrombosis](#)

A cross-sectional study of two Wuhan hospitals ICUs investigated positive patients (N=48) who received compression ultrasound examinations in the lower extremities at least twice. Lower extremity DVT were detected in 41 patients (85.4%), with 36 (75%) isolated distal DVT and 5 (10.4%) proximal DVT. Thus, the overall rate of developing DVT in patients receiving ICU treatment due to COVID-19 was much higher than what was shown previously. The authors suggest timely evaluation of DVT and preventive measures against PE are necessary for the treatment of patients with severe COVID-19

- [Global fear, anger, joy, sadness levels monitored over time via twitter content](#)

*JMIR Public Health and Surveillance* preprint: An analysis of tweets relating to the virus were collected from late January to early April and were evaluated for the emotions of fear, anger, joy, and sadness. Fear was highest at the outset of the study, then dropped and leveled off. Anger, and joy have risen and plateaued, with sadness doubling. Monitoring and addressing these emotions is discussed.

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