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2020-04-10 DAILY UNM GLOBAL HEALTH COVID-19 BRIEFING

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DAILY UNM GLOBAL HEALTH COVID-19 BRIEFING

April 10, 2020

Executive Summary

Extra NM HSD SNAP benefits. NM cases >1000. Meds supply chain threatened. Mass graves in NY. Surgeon General screening app. Presidential briefing. Italian healthcare worker deaths. Taiwan tiered care model. Communicating risks to public. French public demand hydroxychloroquine. Vaccination pause dangers. Retesting needed after discharge. CDC report geography and incidence. UW clinical informatics response. UW preparedness guidelines. Wuhan outbreak control. CDC asymptomatic exposed worker guidelines. Mask innovation. Unemployment spikes. Workforce gaps. Workspace modifications reduce transmission. Guidelines and recommendations: ER physician, surgery, cardiopulmonary resuscitation, chest imaging, geriatrics, critically ill children, postpyloric tube placement, genitourinary malignancies, obstetrics, and home work health. Remdesivir clinically promising. **Hydroxychloroquine safe but higher mortality with azithromycin.** Lockdown health risks. Post-ICU syndrome. Tetracycline therapy potential. ACE2 review. Repurposing candidates. Patient self-triage tool. Video of aerosol spread and lingering. Modeling challenges. 34 new clinical trials registered today.

NM Highlights

- [NM Human Services Department will provide additional SNAP benefits to New Mexico households](#)
New Mexico Human Services Department (HSD) announced Friday it is distributing an enhanced payment of supplemental nutrition assistance program (SNAP) to households that did not receive the maximum SNAP benefits during the months of March and April. NMHSD will be providing additional SNAP benefits to New Mexico households, to ensure that New Mexicans do not go hungry while facing the challenges of the COVID19 pandemic, Gov. Michelle Lujan Grisham tweeted.
- [New Mexico recorded 106 new cases Friday, including two more deaths](#)
New Mexico now has 1091 cases of the virus, with 75 people hospitalized; 235 cases have been designated as recovered. Gov. Michelle Lujan Grisham instructed all New Mexicans to stay home except for outings absolutely necessary for health, safety and welfare.

US Highlights

- [U.S. supply chain of essential medications at risk](#)
Although concerns have been raised about the supply chain of medications from China and other countries, our internal medication supply chain needs to be protected and enhanced for essential medications. Essential medications should be available in the health system at all times, in adequate amounts, with quality ensured, and at a price the individual and community can afford. Such treatments include antibiotics, antivirals, antidiabetic agents, cardiovascular drugs, respiratory agents, contraceptives, mental health products, and analgesics. The FDA needs to identify a list of essential medications during the pandemic and we need to make these medications available and affordable.
- [New York using mass graves amid coronavirus outbreak](#)
Images have emerged of coffins being buried in a mass grave in New York City, as the death toll from the coronavirus continues to rise. The cemetery site is normally for those with no next-of-kin or for families who cannot afford burial costs.
- [New York has more COVID-19 cases than any single country](#)
New York state now has more coronavirus cases than any single country outside the US, according to latest figures. The state's confirmed COVID-19 cases jumped by 10,000 on Thursday to 159,937, placing it ahead of Spain (153,000 cases) and Italy (143,000). Though it leads in positive cases, it's death toll lags behind Spain and Italy.

- [Surgeon General announces symptom screening app](#)

The screening tool was developed by CDC and Apple to find out what actions you should take based on current symptoms.

- [April 9 US Presidential briefing transcript](#)

Airline aid planned. Corps of Engineers building 21 temporary hospitals and care facilities adding 17k beds. Project Airbridge to airlift PPE where needed. Mental health leader meeting to promote access to telemedicine. Pfizer has promising Tx. Clinical trials underway. Increasing federal stores of HCQ, Z-Pak, zinc. Total 2m COVID-19 tests today. Federal reserve \$2.3T in business, state, and local government support. Small business loan resources at <http://sba.gov>. FDA and CMS reviewing feasibility of cloth instead of disposable gowns for doctors.

International Highlights

- [100 doctors and 30 nurses have died of coronavirus in Italy](#)

The toll includes retired doctors who the government began calling in a month ago to help fight the virus. Rome's ISS public health institute estimates that 10 percent of those infected with the coronavirus in Italy work in healthcare.

- [An innovative model of tiered primary health care for fight against the COVID-19 outbreak in Taiwan](#)

The model identifies four tiers. Tier 1: Walk-in clinics, Tier 2: Community Healthcare Groups; Tier 3 Community Screening Stations (CSS); Tier 4: Medical Centers. More than 90% of the clinics in Taiwan participate in the National Health Insurance and accept walk-in patients. This provides a venue for rapid responses including education, diagnosis, isolation, and referral to de-escalate the virus outbreak.

- [Understanding COVID-19 risk perceptions among the public to enhance risk communication efforts](#)

Finnish Institute for Health and Welfare did thematic analysis of emails and social media messages from the public to identify factors linked to COVID-19 risk perceptions.

- [In France, hydroxychloroquine has become a "populist" drug](#)

French physicians have come under enormous pressure from desperate patients to prescribe hydroxychloroquine, despite scant evidence that it works, and 460,000 people have already signed a petition to make it more widely available. A survey revealed that 59% of the French population believes chloroquine is effective against the new coronavirus.

Epidemiology Highlights

- [Polio, measles, other diseases may surge as COVID-19 forces suspension of vaccination campaigns](#)

Global health organizations face dilemma: either continue to support mass vaccination campaigns in poor countries and risk inadvertently helping to spread COVID-19—or recommend their suspension, inevitably triggering an upsurge of many other infectious diseases.

- [COVID-19 patients turn positive after discharge](#)

14.5% of COVID-19 patients had positive RT-PCR testing again after discharge. Suggest need for active follow-up and retesting to confirm illness resolution in COVID-19 patients.

- [Wide differences in increases in COVID cases and deaths across locations explained by many factors](#)

CDC report: although the largest impact of the pandemic has been in cities and can be partially explained by population density, other factors like the timing of when first cases arrived and when mitigation strategies were implemented, reporting practices, how extensive testing was, and whether older, sicker or more vulnerable populations were initially impacted are all important. Communities with low rates now, should not be complacent and need to implement social distancing.

Healthcare Policy Recommendations

- [Policies and guidelines for COVID-19 preparedness: Experiences from the University of Washington](#)

Radiology: Describes processes implemented at the University of Washington in managing the pandemic as well in preparing for patient surges, which may provide important guidance for other radiology departments who are in the early stages of preparation and management.

- [A study showed outbreak under improved control after public health measures were implemented](#)
A series of multifaceted public health interventions were temporally associated with improved control of the #COVID19 outbreak in Wuhan and may inform public health policy in other countries and regions.
- [New CDC guidance states critical employee should continue going to work after exposure to possible or confirmed COVID-19 patients until they become symptomatic](#)
New White House, CDC, and Department of Homeland Security guidance. Critical employees exposed to possible COVID-19 patients but whom do not yet have symptoms should be screened before entering work, monitor for symptoms, wear a cloth face cover, and practice social distancing.

Economics, Workforce, Supply Chain, PPE Highlights

- [Shortage of face masks world over has led to new mask inventions](#)
Components for individualized face masks created using computer-aided design and 3D printing. Prototypes will need clinical testing prior to widespread use in real-life situations.
- [Rising number of uninsured as unemployment spikes during COVID-19 pandemic](#)
During the final week of March 2020, there were 6.648 million newly filed claims for unemployment benefits. A Federal Reserve Bank economist estimated 47.05 million unemployment claims by the end of June, likely to leave 7.3 million without health insurance. Disappearing jobs and health insurance coverage not likely to improve under Medicaid expansion. Experts advocate for emergency authorization of Medicare coverage for persons eligible for unemployment benefits.
- [Planning, coordination and flexibility needed to fill health workforce gaps during crisis](#)
Because health care workers may get sick or require isolation, we need a plan to fill gaps that arise, and address types of care often overlooked like nursing homes, and mental health. This NEJM opinion piece suggests we tap medical students, end red tape, loosen restrictions on medical providers and develop long term planning and training for our workforce needs.
- [Built environment considerations to reduce transmission](#)
Provides methods to design and manage the physical workspace to minimize virus transmission.

Therapeutic Guidelines

- [Coronavirus Disease \(COVID-19\): A primer for emergency physicians](#)
AJEM review article provides emergency physicians with recommendations on the evaluation and management of patients with suspected COVID-19.
- [Guidelines for surgery in COVID-19 patients](#)
Major Italian surgical and anesthesiologic societies: ACOI, SIC, SICUT, SICO, SICG, SIFIPAC, SICE, and SIAARTI recommend clinical pathways for COVID-19-positive patients requiring acute non-deferrable surgical care.
- [Cardiopulmonary resuscitation guidelines issued](#)
Interim guidance issued for adults, children and neonates that will reduce provider exposure and prioritize oxygenation and ventilation strategies with lower aerosolization risk. Providers should consider the appropriateness of starting and continuing resuscitation.
- [Expert Panel gives consensus statement on role of chest imaging](#)
There are 5 main recommendations: 1. Imaging is NOT indicated for screening COVID-19 in asymptomatic persons. 2. Imaging is NOT indicated for patients with mild features of COVID-19, unless there is high risk for disease progression 3. Imaging IS indicated for patients with moderate to severe features regardless of COVID-19 test results. 4. Imaging IS indicated for confirmed cases of COVID-19 with worsening respiratory status 5. In areas of constrained resources with limited access to CT, CXR may be preferable unless degree of progression warrants use of CT.
- [American Geriatrics Society policy recommendations for public health planning, etc.](#)
AGS recommends the Defense Production Act include nursing homes (NH), congregate living settings, and home health care in estimates for PPE response. All COVID-19 positive patients should only be discharged to NH if the transfer can be

performed in accordance with CDC guidelines. CDC should develop guidance regarding transfers to ED for residents presumed or confirmed to have COVID-19. Geriatric health professionals and hospice/palliative care experts should be included in emergency planning and response teams. Consider using "hospital-at-home" models of care where possible. More recommendations in the policy brief can be found in the link.

- [Clinical management of COVID-19 in critically ill children](#)

Narrative literature review on clinical management, as well as information on PICU preparedness activities.

- [Practice of novel method of bedside postpyloric tube placement in patients with COVID-19](#)

Here the authors shared their practice of novel placing method in Wuhan for nutritional therapy.

- [Canadian guidelines for managing genitourinary malignancies](#)

Eighteen academic genitourinary medical oncologists from 11 cancer centers across Canada participated in preparing this guidance document for managing patients during the current pandemic.

- [Priorities in the management of obstetric COVID-19 patients](#)

The review provides evidence-based recommendations and/or expert opinion for anesthesiologists caring for pregnant women during the COVID-19 pandemic. Main focus is preparedness and best clinical obstetric anesthesia practice.

- [Work-life balance tips for researchers working at home](#)

Make a plan that includes exercise, prioritizing social interactions, creating a schedule for work and having a dedicated workspace.

- [Clinical data support the use of Remdesivir for severe COVID-19](#)

In 53 patients hospitalized for severe Covid-19 who were treated with compassionate-use remdesivir, clinical improvement was observed in 68%.

Science, Drugs, Therapeutics, Testing Highlights

- [Hydroxychloroquine is safe alone. With azithromycin: 2.19-fold higher 30-day cardiovascular mortality](#)

UNM participates in the largest observational study to date on HCQ safety. Global OHDSI consortium used 956,374 and 310,350 users of HCQ and sulfasalazine respectively, as well as 323,122 and 351,956 users of HCQ+azithromycin and HCQ+amoxicillin respectively, all with rheumatoid arthritis. Meta-analyses were done on studies performed over a global data network for 16 adverse events in both 30-day follow-up and self-controlled case series (SCCS) designs. No excess risk for any of the 16 adverse events was identified when 30-day HCQ and sulfasalazine use were compared. SCCS confirmed these findings. Azithromycin+HCQ had increased risk of 30-day cardiovascular mortality (HR=2.19, 95% CI: (1.22-3.94)), chest pain/angina HR=1.15 (1.05-1.26), and heart failure 1.22 (1.02-1.45), over azithromycin-amoxicillin. Paper under peer review.

- [Prolonged lockdowns have associated health risks](#)

Undesirable consequences of prolonged homestay include physical inactivity, weight gain, behavioral addiction disorder, insufficient sunlight exposure and social isolation. Tentative solutions to alleviate the side effects are addressed. Health risks and potential remedies during prolonged lockdowns are discussed.

- [Survivors of severe COVID-19 can have long term health consequences \(“post-ICU syndrome”\)](#)

Patients who spend time in ICU, are prone to physical, cognitive, and mental health problems after discharge. Many patients who need a ventilator never recover, and those who survive a long period are prone to muscle atrophy and weakness.

- [Therapeutic Potential for Tetracyclines in the Treatment of COVID-19](#)

Highly lipophilic antibiotics. Chelate zinc compounds on matrix metalloproteinases (MMPs). Coronaviruses rely on host MMPs for survival, cell infiltration, cell to cell adhesion, and replication. Tetracyclines overall are much safer agents than other potential agents that have been considered to treat COVID-19, such as chloroquine or antiretroviral drugs.

- [Prediction models for diagnosis and prognosis of covid-19: review](#)

Reports of prediction models are reviewed. Three models were identified for predicting hospital admission from pneumonia and other events in the general population, 18 models for detecting covid-19, and 10 models for predicting mortality risk, progression to severe disease, or length of hospital stay.

- [Review on angiotensin converting enzyme 2, whose receptor is the entry point of SARS-CoV-2](#)
Their review summarizes the progress over the past 20 years, highlighting the critical role of ACE2, together with implications for the COVID-19 pandemic and associated cardiovascular diseases.
- [Top candidates for drug repurposing: Raltegravir, Paritaprevir, Bictegravir and Dolutegravir](#)
Two selected drug target proteins were screened against an in-house library of 123 antiviral drugs. After extensive computational analysis, the authors proposed the above FDA-approved drugs as excellent lead candidates.
- [Patient self-triage and self-scheduling tool is implemented](#)
A patient portal-based COVID-19 self-triage and self-scheduling tool was created and made available to all primary care patients at a large academic health system. Symptomatic patients were triaged into one of four categories: emergent, urgent, non-urgent or self-care, and then connected with the appropriate level of care via direct scheduling or telephone hotline. The tool has recommended emergency-level care with high sensitivity, and decreased triage time for patients with less severe illness. The data suggests it also prevents unnecessary triage messages, phone calls and in-person visits.
- [Coronavirus lingers in air for several minutes after a COVID-19 sufferer coughs](#)
Scientists in Finland have released a 3D model video showing a scenario where a person coughs in an aisle between shelves, like those found in supermarkets. They found the aerosol cloud spreads outside the immediate vicinity of the coughing person and dilutes, and takes many minutes to settle to the ground.
- [34 new COVID-19 Trials registered today at clinicaltrials.gov](#)
Treatment trials: TJoo3234 (Anti-GM-CSF Monoclonal Antibody), Clinical and Immunological Characterization, Epidemiology of SARS-Cov-2 and Mortality, ECG Sensor System, Immune Modulatory Drugs (Sarilumab, Azithromycin, Hydroxychloroquine), Plasma Therapy, Hydroxychloroquine, Predictive Biomarkers of Secondary Aggravation, Recombinant Novel Vaccine (Adenovirus Vector), Gargling Agents in Reducing the Intraoral Viral Load, Serological Techniques for Screening, Sirolimus Treatment with Pneumonia, Convalescent Specimens of Antibodies, Auricular Vagus Nerve Neuromodulation, NIV and CPAP Failure Predictors, Hydroxychloroquine and Nitazoxanide, Effects of DPP4 Inhibition, AlloSure Guided Immuno-Optimization, late ECMO Therapy, Methylprednisolone Pulses and Tacrolimus With Lung Injury, Hydroxychloroquine as Prophylaxis, Efficacy of Anakinra, Pulmonary Ultrasound. At time of writing, a total of [436](#) were active, [23](#) completed, and [3](#) posted results.

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