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2020-04-09 DAILY UNM GLOBAL HEALTH COVID-19 BRIEFING

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DAILY UNM GLOBAL HEALTH COVID-19 BRIEFING

April 9, 2020

Executive Summary

Today we began curating the firehose of National Library of Medicine COVID-19 Literature released daily. NM Governor gave weekly update. School online instruction starts Monday. Tribal communities in crisis. COVID-19 scams. NY food banks overwhelmed. Public sentiment survey. Arizona tracing outbreak with genomics. Abortion controversy continues. WHO Solidarity-II antibody study. South Korea epidemiology released. Preventing second COVID-19 wave. Institutional case reporting required. Gynecological procedure safety. Rationing ethics and advanced directives. CDC advice on exposed critical workers. Triaging urological procedures. Pathology safety and remote work. Healthcare workforce expansion. Involve and educate medical students. CDC no longer recommends hydroxychloroquine (HCQ). HCQ safety and dosing recommendations. Pain care consensus. NSAID lack of evidence. Dermatological agents. Immune suppressant/stimulant drug review. Clinical benefit of convalescent plasma. Loss of taste and smell common. Social distancing: elderly depression & suicidality. New trials registered-numerous therapies. Japanese student graduation with robot proxies.

NM Highlights

- NM Governor Michelle Lujan Grisham state update video
 - Governor provides information about economic interventions. Human Services Secretary Dr. David Scrase presents model estimates that NM hospital bed capacity could be filled in two weeks. Case doubling time among lowest in nation at ~4 days.
- Albuquerque students to restart instruction online Monday, April 13
 - Students will wrap up the 2019-20 academic year from a distance and focus on critical instruction until May 21. Albuquerque Public Schools (APS) using https://classroom.google.com app to manage classes. Children in APS use existing aps.edu emails, which are their student emails. Other schools, including charter schools, are sending out emails to get children enrolled.
- Hundreds of cases in three tribal communities
 - There have been hundreds of positive COVID-19 cases, and more than a dozen deaths in the three communities: The Navajo Nation, San Felipe Pueblo, and the Zia Pueblo. Senator Tom Udall has asked for federal government assistance.
- New Mexico officials warn of virus-related scams
 - The New Mexico Attorney General's Office and the state Office of the Superintendent of Insurance are warning residents about COVID-19 scams. Con artists often pretend to be part of a governmental agency, a charity or an established business and ask consumers to provide their personal identification information.
- New Mexico recorded 124 new cases Thursday, including one more death
 - New Mexico now has 989 cases of the virus, with 73 people hospitalized; 22 are on ventilators. Gov. Michelle Lujan Grisham said that growing numbers of novel coronavirus cases in New Mexico show community spread throughout the state.

US Highlights

- Food banks overwhelmed in New York after millions register as unemployed
 - Cars are lining up for miles. Many organizations that typically donate large volumes of food have shut down. Restaurants, hotels and casinos, and grocery stores, have less to donate. Food bank costs soaring as paying full price from suppliers.
- <u>US public sentiment survey: pandemic measures taken and threats faced</u>
 A convenience sample social media survey study (n=9009) was conducted aimed to rapidly assess public concerns about the

COVID-19 crisis. Top concerns among respondents were getting sick because of COVID-19 and not being able to get medical care. The most common difficulties reported were obtaining hand sanitizer, food, and childcare.

Researchers in Arizona analyze genomes to trace outbreak

Researchers in Arizona are analyzing genomes of coronavirus samples taken in Arizona to trace the outbreak to understand where the virus is coming from, how it's spreading through the population and whether it's mutating in ways that would make existing tests or future vaccines unreliable.

Some governors called for halt to abortion care throughout the Covid-19 epidemic

Governors in Texas, Louisiana, Mississippi, Alabama, and Oklahoma have ordered or supported the cessation of both medication and surgical abortion, while governors in other states have directed that surgical abortion alone must stop. The American College of Obstetricians and Gynecologists (ACOG) and other reproductive health professional organizations stated that they "do not support Covid-19 responses that cancel or delay abortion procedures".

International Highlights

• Solidarity II, a coordinated study to test blood samples for antibodies to the novel coronavirus

WHO is planning a coordinated study to test blood samples for the presence of antibodies to the virus. Called Solidarity II, the program, which will involve more than half a dozen countries around the globe, will launch in the coming days.

Epidemiology Highlights

• COVID-19: the first 7,755 cases in the Republic of Korea

Summary statistics of the demographic characteristics and mortality of the 7,755 cases in Korea show a 0.9% case fatality proportion. Older people and those with comorbidities are at higher risk of mortality. Among deaths, time from symptoms to diagnosis was 4 days, time from symptoms to hospitalization was 4.5 days, and time from symptoms to death was 10 days.

- Summary of 2,370 Contact Investigations of the First 30 Cases in the Republic of Korea
 - The secondary attack rate was 0.55% (males 0.75%, females 0.38%). The household contact secondary attack rate was 7.56%. The number of traced individuals per case ranged 15-649. The mean monitored time per person ranged 5.7-31.3 days.
- Second wave of COVID-19: potential adverse consequences of premature relaxation of interventions

 Lancet: Leung and colleagues modelled the potential adverse consequences of premature relaxation of interventions and found that such a decision might lead to second wave of infections. The finding is critical to governments globally, because it warns against premature relaxation of strict interventions.
- Urgent need for reporting of at home, hospitalized, and ICU cases

Current reports on hospitalizations are delayed, uncertain, and wholly inadequate. The pandemic is amenable to self-reporting through a mobile phone application that could obtain critical information on suspected cases and report on the results of self-testing and actions taken. The only method to understand the clustering and the immediate hospital resource needs is mandatory, uniform, daily reporting of hospital censuses of COVID-19 cases admitted to hospital wards and ICUs.

Healthcare policy recommendations

- <u>International society of ultrasound in obstetrics and gynecology issues safety guidelines</u>

 ISUOG Safety Committee released statement on use of personal protective equipment and hazard mitigation in relation to SARS-CoV-2 for practitioners undertaking obstetric and gynecological ultrasound.
- <u>UK health care leaders warn: it is unethical to apply advance care plans to whole groups of people</u>

 The Royal College of Physicians has published ethical guidance for doctors during the pandemic. Medical leaders say it is "unacceptable" for advance care plans—with or without a completed "Do not attempt to resuscitate" (DNAR) form—to be applied in a blanket manner to whole groups of people during the covid-19 pandemic.

• Code Blue during the COVID-19 pandemic

Recommendations on patient's resuscitation are given in the context of COVID-19 pandemic. Hospitals should implement policies to clarify *patients' advanced directives* and their COVID-19 status as soon as possible. All admitted patients regardless of COVID-19 status should have meaningful discussions about goals of care and DNAR/AND status on admission. In some cases, medical providers should don PPE prior to resuscitations. This is to protect healthcare providers, since recent experience in Italy has shown that 1 in 6 hospitalized patients with COVID-19 are healthcare workers.

CDC advice for exposed critical infrastructure workers who remain asymptomatic

Employers should measure the employee's temperature and assess symptoms prior to them starting work. **Regular Monitoring:** As long as the employee doesn't have a temperature or symptoms, they should self-monitor under the supervision of their employer's occupational health program. **Wear a Mask:** The employee should wear a face mask at all times while in the workplace for 14 days after last exposure. **Social Distance:** The employee should maintain 6 feet and practice social distancing as work duties permit in the workplace. **Clean and Disinfect** all areas such as offices, bathrooms, common areas, shared electronic equipment routinely. They should adhere to these practices prior to and during their work shift. If employee becomes sick during the pandemic.

• Triaging office-based urologic procedures during the COVID-19 pandemic

Recommendations for how long various urology procedures may be delayed (if at all). Procedures considered: diagnostic cystoscopy, surveillance cystoscopy, intravesical instillations for bladder cancer, prostate biopsies and administration of androgen deprivation, cystoscopy with ureteral stent removal, Foley and suprapubic catheter exchanges, urodynamics.

Economics, Workforce, Education, Supply Chain, PPE Highlights

- <u>Biosafety procedures for cytologic and histologic samples as employed at an Italian institution</u>

 Protocols and guidelines for cytologic and histologic samples in use at a large tertiary Italian hospital are presented.
- Methods for remote pathology work during the COVID-19 pandemic

Using secure video conferencing tools, pathologists at labs and tumor boards can share diagnostically challenging cases remotely and broadcast the feed on a microscope-mounted camera as they drive a slide in real time. Pathologists can view health record information and discuss management plans to minimize disruptions to the practice of academic pathology.

• A call to cut bureaucratic barriers to expand health care workforce: enroll medical students, retired medical workers, dentists, optometrists, and others

Additional actions are needed to rapidly increase health workforce capacity and to replenish it when personnel are quarantined or need time off to rest or care for sick family members. Health care delivery organizations, educators, and government leaders all have to be willing to cut through bureaucratic barriers and adapt regulations to rapidly expand our health care workforce and sustain it for the duration of the pandemic.

Student and trainee responses to the Covid-19 pandemic: support is needed

A survey was conducted among 316 third- and fourth-year medical students, interns, medical residents and fellows. The respondents report intense anxiety, uncertainty, and anticipatory loss. Leaders in medical education can communicate frequently with students and trainees to maximize the information and emotional support they receive. The leaders should also create safe spaces for them to share their concerns, acknowledge and validate their emotions, and collaborate on innovative ways to contribute.

- Enabling graduating students to start internship early at their own medical school is needed
 - There are more than 30,000 almost-qualified future interns mostly under stay-at-home orders in the US. Some U.S. medical schools, emulating New York University, have graduated their students early. Italy, UK, and Ireland, have already brought their students in as health care workers. One could couple new online educational tools with the advantage of familiarity in having students start their "internships" in the health care systems affiliated with their medical school. Most schools could deliver educational content online.
- The role of medical students during the COVID-19 Pandemic

- Annals of Internal Medicine article disagrees with The American Association of Medical Colleges (AAMC) instruction to medical schools to suspend student clerkships. Suggestions for participation in lower risk activities provided.
- Daily education for medical students during COVID-19 pandemic: a simple videoconference solution
 Authors report a simple and free teaching method intended to compensate for loss of daily lessons performed in the surgery department using the Google Hangouts application. This method can be applied to clinical and anatomy lessons.

Therapeutic Guidelines

- CDC no longer recommends hydroxychloroquine as potential treatment for coronavirus

 Following major concerns regarding the validity of the Gautret et al initial study, the CDC revised its guidance regarding treatment options for SARS-CoV-2. The CDC no longer states that chloroquine and hydroxychloroquine are "reportedly well-tolerated in COVID-19 patients." Instead, it states "There are no drugs or other therapeutics approved by the U.S. Food and Drug Administration to prevent or treat COVID-19."
- Avoid hydroxychloroquine + azithromycin for patients with QT interval prolongation: AHA, ACC, HRS
 The American Heart Association, American College of Cardiology, and Heart Rhythm Society recommend that the
 combination of hydroxychloroquine and azithromycin be withheld in patients with baseline QT ECG prolongation.
- New hydroxychloroquine dosing recommendations to minimize time to therapeutic dose

 Given its variable pharmacokinetic properties, there can be delays in achieving optimal target blood levels of HCQ. A modified dosing strategy is proposed. Blood HCQ trough levels between 1 and 2 mg/L are considered therapeutic. Only 8/13 patients achieved minimal level using 3x/day 200mg dose; 2 patients exceeded the maximum dose. Mean time to therapeutic dose was 2.7 days. Recommendation for ICU patients: Single 800 mg loading dose Day 1, followed by 200 mg 2x/day for 7 days.
- Caring for patients with pain during the COVID-19 pandemic: Consensus panel recommendations

 Recommendations from an expert panel of pain physicians, psychologists & researchers from North America and Europe
 offer specific guidelines (detailed in the paper) for chronic pain patients during the COVID-19 pandemic: ensure continuity of
 care and pain medications, especially opioids; use of telemedicine; maintain biopsychosocial management; use of antiinflammatory drugs; use of steroids (with caution); and prioritize necessary procedural visits.
- NSAIDs No published evidence for or against their use in COVID-19 patients

 Corticosteroids may be beneficial if utilized in the early acute phase of infection. Caution on use of NSAIDs and corticosteroids in COVID-19 patients.
- Withold dermatological immunomodulators for suspected/confirmed cases
 Australia/New Zealand consensus statement. In patients with suspected or confirmed COVID-19 disease, all immunomodulators used for skin diseases should be immediately withheld, with the possible exception of systemic corticosteroid therapy, which needs to be weaned. In patients who develop symptoms or signs of an upper respiratory tract infection, but COVID-19 is not yet confirmed, consider dose reduction or temporarily cessation for 1-2 weeks. In otherwise well patients, immunomodulators and biologics should be continued.

Science, Drugs, Testing Highlights

- Immune-suppressive and stimulating drugs and COVID-19: a systematic review of current evidence

 Cancer and transplant patients with COVID-19 have a higher risk of developing severe and even fatal respiratory diseases, especially as they may be treated with immune-suppressive or immune-stimulating drugs. This literature review shows that low-dose prednisolone and tacrolimus may have beneficial impacts on COVID-19. The use of mycophenolate mofetil is less clear, with conflicting data from pre-clinical studies. There is no definitive evidence that specific cytotoxic drugs, low-dose methotrexate for auto-immune disease, NSAIDs, JAK kinase inhibitors or anti-TNF alpha agents are contraindicated. There is clear evidence that IL-6 peak levels are associated with the severity of pulmonary complications.
- Convalescent plasma therapy is effective in severe COVID-19 patients: initial findings

10 severe patients with COVID-19 were given one dose (200 mL) of convalescent plasma (CP) derived from recently recovered donors as an addition to maximal supportive care and antivirals. Symptoms significantly improved within 3 days. The viral load was undetectable after transfusion in 7 patients who had previous viremia. CP therapy was well tolerated.

- Immune (convalescent) plasma for the prevention and treatment of COVID-19

 Limited data from China suggest clinical benefits, including radiological resolution, reduction in viral loads and improved survival. A review of previous studies of viral infections suggest overwhelming benefits from prophylaxis or treatment.
- The sudden loss of smell and taste need to be recognized as symptoms of COVID-19 infection

 Multicenter European study (n=417): patients commonly report olfactory (85.6%) and gustatory dysfunctions (88.0%).
- Social distancing is detrimental for mental health: increased depression and suicidality in seniors

 Social distancing may have a detrimental effect on mental health, especially for adults over 65, who may be less comfortable with virtual solutions. Prevent social distancing from becoming social isolation, which leads to depression and suicidality.
- New COVID-19 Trials registered today at clinicaltrials.gov
 Treatment trials: point of care ultrasonography, nosocomial dissemination risk of SARS-CoV-2, COVID-19 convalescent plasma, azythromicin added to hydroxychloroquine, safety and efficacy of baricitinib, mesenchymal stem cells for COVID with pneumonia, hydroxychloroquine treatment for mild COVID-19, atovaquone and azithromycin Combination, and personalized Immunotherapy for SARS-CoV-2 associated with organ dysfunction. At time of writing, a total of 24 were active, 0 completed, and 0 posted results.

On a lighter note

• Japanese University uses robots as students for their graduation to avoid large gatherings

Robot avatars were remotely operated by students at the Spring graduation ceremony of the Business Breakthrough
University in Japan. Displaying the faces of the students on tablets, the avatars motored toward the podium to receive
diplomas from clapping and cheering staff.

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