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2020-05-23/24/25/26 DAILY UNM GLOBAL HEALTH COVID-19 BRIEFING

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DAILY UNM GLOBAL HEALTH COVID-19 BRIEFING

May 26, 2020

Executive Summary

NM Highlights: NM hospitals meet benchmarks. NM case count. Reopening healthcare updated guidelines. Mescalero declares emergency. Stalled capital funds for budget. Emergency spending under scrutiny. BCBS special healthcare enrollment period. NM SC guidance for CYFD. Mass gatherings impossible very soon. NM mayors divided on Gov's communication. No 4th July event in Roswell. Life span of COVID-19 on surfaces.

US Highlights: US curbs travel from Brazil.

International Highlights: Anti-science sentiment. Japan ends lockdown. Chilean healthcare limited.

Economics, Workforce, Supply Chain, PPE Highlights: Negative effects of masks. False sense of security.

Epidemiology Highlights: Uncontrolled COVID-19 spread. Dutch children play minor role. Infection low in Iceland children. Children do not infect teachers. Super spreader businesses and COVID-19. Flu cases down. Hospital-based outbreak.

Healthcare Policy Recommendations: Using behavioral economics to mitigate COVID-19 spread. Review of the best virtual meeting practices.

Practice Guidelines: Recommendations are provided on resumption of radiology care and management of vascular/interventional radiology departments.

Testing: Two meta-analyses on antibody testing for COVID-19.

Drugs, Vaccines, Therapies, Clinical Trials: Remdesivir improves recovery time. Operation Warp Speed. Solidarity Trial pause video. Phase I CanSino trial. Novavax Phase I trial. Traditional Chinese medicine. Famotidine promising results. RAAS inhibitors. Graphical vaccine guide. Antivirals in ferrets. Vaccines in Africa. 33 New COVID-19 Trials. A website created to check for COVID-19 drug interactions.

Other Science: Psychiatric and neuropsychiatric symptoms. Morbid obesity risk factor. Dermatologic manifestations. Panic buying. Healthcare worker mental health. Mortality computational model. Peptide biomarker. Early predictors. Medical students review literature. Mink-to-human transmission.

All of our past briefings are maintained in a UNM library repository [here](#).

Our continuously curated practice guidelines in the context of COVID-19 can be found [here](#).

Our continuously curated therapeutic evidence is maintained [here](#).

You may submit content for future briefings [here](#).

NM Highlights

- [NM meets key virus benchmarks for hospitals](#)

Data suggests that New Mexico is in good shape in three major categories for keeping the virus at bay: intensive care unit hospital beds, personal protective equipment, and testing capacity. The balanced approach between UNM, Presbyterian, Lovelace Health System, and other regional hubs has allowed patients needing ICU beds to be spread out across the different facilities. Many NM hospitals are reporting deep stockpiles of the protective equipment. The state has the fifth highest per-capita coronavirus testing rate in the country.

- [NM reports 5 more COVID-19 deaths and 107 additional cases on May 26](#)

As of today (5/26), the total positive cases and total deaths in the state are 7,130 and 325, respectively. The state has performed 180,646 tests, there are 211 individuals currently hospitalized for COVID-19, and 2,564 COVID-19 cases have recovered. [NMDOH portal featuring epidemiologic breakdown of cases.](#)

- [Updated NM guidelines for office-based practices and elective procedures \(5/21/2020\)](#)

Offices are allowed to reopen assuming they take precautions to reduce transmission, have 2 weeks of PPE, and ensure social distancing in waiting rooms. Further recommendations are to operate at less than 50% capacity for the first two weeks, screen patients for exposure and take temperature checks before entering facilities, and to screen with high sensitivity testing 48 hours before. This does not apply to cosmetic surgeries. Special recommendations for ENT and GI.

- [Mescalero declares emergency to prevent potential coronavirus outbreak](#)

The Mescalero Apache Tribe has ordered a two-week lockdown to try and stop the spread of the coronavirus. Mescalero Apache Tribal President Gabe Aguilar said the reason for the lockdown is because they may be facing a potential outbreak.

- [NM to use stalled capital funds to plug budget gap](#)

The state had about \$1.2 billion in unspent funding for approved capital outlay projects earlier this year, and legislators can use some of that money to offset revenue deficit. Among the large unspent capital outlay appropriations from 2019 are \$4.1 million for a new museum of contemporary art in downtown Santa Fe, \$6 million for security cameras and fire suppression systems at the University of New Mexico and \$5.4 million for a road extension between Sunland Park and Santa Teresa.

- [\\$200M in emergency spending under scrutiny](#)

When the Department of Health posted an emergency declaration, earmarking \$200 million, it came under scrutiny by the Legislative Finance Committee recently. Under state law, emergency requests are required to provide specific details of each purchase, contract or services purchased and the nature of the emergency. A spokesperson for NMDOH said individual expenditures will be detailed and posted on the state Sunshine Portal.

- [Blue Cross Blue Shield of New Mexico offers special healthcare enrollment period](#)

Those who have lost job-based health plan through an employer or a family member's employer or have recently been furloughed can qualify for a special enrollment period. People can enroll in one of the several health care options including Medicaid, the Health Insurance Marketplace, or COBRA. Qualifying individuals have up to 60 days to enroll in a health plan after a job loss. There is no Special Enrollment Period for those government-provided coverage options as one can apply at any time. To sign up for an insurance plan visit [BCBSNM.com](#).

- [NM Supreme Court issues guidance for CYFD child visits](#)

Visitations were suspended in late March. Now in regions of decreased COVID-19 rates (1.15 or less), in-person visits between children in CYFD custody and respondents are allowed in a safe manner. The in-person visits are prohibited in areas with higher transmission rates.

- [Mass gatherings of more than 100 people may not be possible for more than a year](#)

A New Mexico state official said mass gatherings, such as sports stadiums, concert halls, and conference centers in the state may not be possible for more than a year because of the coronavirus pandemic.

- [Mayors across New Mexico divided on communication from Governor's Office](#)

Some NM mayors say enough guidance or advance notice to help them prepare for changes in health restrictions is not

provided by the office of Gov. Michelle Lujan Grisham. At the same time, other mayors are praising the governor's response to the pandemic as well as her office's communication. Political partisanship, geographic, cultural, and economic are the key reasons for the contrast.

- [Roswell's Fourth of July event canceled](#)

The city of Roswell officially canceled its free Fourth of July Extravaganza event. Roswell's UFO Festival scheduled for the same weekend was also canceled along with Hike It & Spike It, the world's largest four on four flag football tournament scheduled for this weekend.

- [Virus transmission: How long can COVID-19 live on surfaces?](#)

Health and Human Services Secretary, Dr. David Scrase, in an interview with KQRE News, answers questions regarding COVID-19 person-person spread, comparing transmission and break down of virus particles via a person's mouth, surfaces such as clothing and cardboard, or food handling and consumption. Dr. Scrase also discusses 'super-spreader' events like concerts and other social settings.

US Highlights

- [US curbs travel from Brazil](#)

Al Jazeera: The White House stated that the ban applies to all foreign nationals who have been in Brazil in the 14 days before heading to the US. Green card holders, close relatives of US citizens and flight crew members, among select others, would be exempt. The new restrictions come into effect on May 28.

International Highlights

- [Let scientists do their job: A perspective from leading Brazilian scientist](#)

Nature: Some Brazilian government support towards the scientist community would have great gains in establishing a pharmaceutical industry based on biopharmaceuticals considering the country is biodiverse. 'Medications should be prescribed by doctors, not the president': leading Brazilian scientist discusses the pandemic.

- [Japan ends state of emergency](#)

Al Jazeera: Japan has ended its state of emergency over the coronavirus as new cases per day drop below 50 and less than 2,000 people remain hospitalized. Japan has managed to avoid a large outbreak, but criticism of PM Shinzo Abe's handling of the pandemic is growing as his approval rating drops below 30%.

- [Chilean healthcare close to its limit](#)

BBC News: Chilean president claims their healthcare system is at its limit. The country has recorded almost 70,000 cases and 700 deaths. With the capital, Santiago, under strict restriction, protests have broken out. 4.8 million people are estimated to receive payment from the president.

Economics, Workforce, Supply Chain, PPE Highlights

- [Negative effects of wearing face masks](#)

BMJ Letter to Editor: Wearing a mask gives a false sense of security and reduction in compliance. People must avoid touching their masks otherwise masks are counterproductive. The quality and volume of speech between people wearing masks is considerably compromised and they may unconsciously come closer. Wearing a mask makes the exhaled air go into the eyes. This generates an impulse to touch the eyes with potential for contamination. Face masks make breathing more difficult.

- [Cloth masks create a false sense of security](#)

MedRxiv Preprint: This study, not yet peer-reviewed, shows evidence that masks enable disinhibition behavior and that Americans spend less time at home and more time in moderate to high-risk locations following orders to wear masks. Mask orders provide a sense of protection, leading people to substitute face mask wearing for other nonpharmaceutical interventions like avoiding time in public.

Epidemiology Highlights

- [24 states in danger of uncontrolled COVID-19 spread](#)

Imperial College, London: A comprehensive US state-by-state set of models shows that people sharply reduced their movements after stay-at-home orders were broadly imposed in March. The model, using data up to May 20, 2020, which has not been peer reviewed, shows that in the majority of states, a second wave looms if people relax the efforts to mitigate the viral spread. The reproduction numbers for all states shows that they have dropped below 1 in DC and 26 states, and in these places, the epidemic was waning. In 24 states, including New Mexico the model shows a reproduction number over 1. Texas tops the list, followed by Arizona, Illinois, Colorado, Ohio, Minnesota, Indiana, Iowa, Alabama and Wisconsin. The model estimates that 2.6% of the New Mexico population has been infected. They also show state by state impact of interventions.

- [Children play minor role in COVID-19 transmission](#)

The Dutch Department of Health and Environment website reports that children play a minor role in the transmission of COVID-19. There is no indication that children under 12 were the first in the family to be infected. COVID-19 is primarily spread between persons of the same age. Infected children were less likely to have symptoms than adults.

- [Low infection in Iceland's children](#)

Iceland conducted testing of 16% of its population and found that none of the 1000 children tested without symptoms were positive. Of the positive cases of adults, none were infected by a child, but transmission from adults to children was quite common. There have been no closures of schools or daycares.

- [Transmission of COVID-19 in schools by children](#)

A detailed investigation of COVID-19 cases in 15 primary and high schools in New South Wales found that half the cases were in staff. Transmission in schools by children is less than that for other respiratory viruses such as influenza. There was no evidence of children infecting teachers.

- [Super-spreader businesses and transmission rates](#)

Dine in restaurants, counter ordering restaurants, hotels and motels are classified as superspreader businesses based upon the frequency and duration of visits as well as the density of visitors in the businesses. Higher density of superspreader businesses is correlated with higher numbers of COVID-19 cases. Governments should consider more options to help restaurants reopen while mitigating the risk to the public, such as more outside seating, limitations on the number of visitors at a time, and monitoring traffic.

- [COVID-19 lockdowns possibly stopped flu in its tracks](#)

Nature: Data from FluNet, a global surveillance system, usually show a peak in February and tail off by the end of May. This year, lab-confirmed cases of influenza dropped precipitously in early April, a few weeks after the coronavirus pandemic was declared on 11 March. WHO suggested that public-health measures such as movement restrictions, social distancing and increased personal hygiene likely had an effect on decreasing influenza and other respiratory virus transmissions.

- [119 people infected after a single COVID-19 case presented to South Africa hospital](#)

In March, a patient who had COVID-19 symptoms visited the ER of a hospital in South Africa. Eight weeks later, 39 patients and 80 staff had been infected, and 15 patients had died. This study suggests that all the cases originated from a single introduction. Patients rarely infected other patients. The virus was carried by staff and on medical equipment. Hospitals should take note about the prevention of hospital-based infections.

Healthcare Policy Recommendations

- [Using insights from behavioral economics to mitigate the spread of COVID-19](#)

The authors introduce a number of insights from behavioral economics that help explain why people may behave irrationally during the COVID-19 pandemic. In particular, present bias, status quo bias, framing effect, optimism bias, affect heuristic, and herding behavior are discussed. The authors make suggestions for healthcare policy improvements.

- [Maximizing virtual meetings and conferences: a review of best practices](#)

In the COVID-19 pandemic where videoconferencing has become ubiquitous, the authors say it is more important than ever to maximize communication in the scientific and medical community. Their scoping review identified 4 phases of the meeting cycle: Pre-planning considerations, planning, accomplishing conference goals through execution, gauging response and engaging the target audience for future cycles (PrePARE). Akin to the Plan, Do, Study, Act Cycle of quality improvement interventions, these recommendations inform medical and academic community on meeting registration, scheduling, speakers, attendees, event type, technology, monetization/marketing, dealing with disruptions, post-event deliverables, response and engagement strategies.

Practice Guidelines

- [American college of radiology statement on safe resumption of routine radiology care](#)

A comprehensive management strategy includes consideration of local COVID-19 statistics; availability of PPE; local, state, and federal government mandates; institutional regulatory guidance; local safety measures; health care worker availability; patient and health care worker risk factors; factors specific to the indication(s) for radiology care; and examination or procedure acuity. If the risk of illness or death to a health care worker or patient from health care-acquired COVID-19 is greater than the risk of illness or death from delaying radiology care, the care should be delayed; however, if the opposite is true, the radiology care should proceed in a timely fashion.

- [Spanish consensus on management of vascular and interventional radiology departments](#)

A consensus was developed by a group of Spanish interventional radiology senior experts. Avoid the coincidence of incoming and outgoing patients, and minimize waiting periods in the preparation room. The transfer from the hospitalization room, ER or ICU must be done with the patient covered with a surgical mask that will be used throughout the intervention and its subsequent return transfer. The orderlies or porters responsible for moving the patient must also be equipped with protective gear. In the preparation room, the patient should be asked about possible respiratory symptoms and his/her temperature should be measured. Keep the doors of the interventional suite always closed. Only the basic material should be kept in the interventional suite. Immobile or essential equipment must be covered with plastic covers. Surgical gowns or gloves must never leave the interventional suite. You cannot stay or enter in the interventional suite without wearing the FFP2-3 mask/respirator when a COVID-19 patient is being treated. Wash your hands as many times as necessary with an alcohol-based solution or hydroalcoholic gel. There is evidence of drug interactions with experimental COVID-19 therapies.

Testing

- [Two meta-analyses on antibody tests in detecting SARS-CoV-2](#)

The first meta-analysis ([link](#)) was conducted by an international group of authors (N=38 studies). The data sources included PubMed, medRxiv, and bioRxiv (up to April 17, 2020). The review showed that all methods yield high specificity with some of them (ELISA and LFIA) reaching 99%. ELISA- and CLIA-based methods perform better in terms of sensitivity (90%-94%) followed by LFIA and FIA with sensitivities ranging from 80% to 89%. ELISA tests could be a safer choice at this stage of the pandemic. S antigen detection-based tests are more sensitive than N antigen-based tests. IgG tests performed better compared to IgM ones and showed better sensitivity when the samples were taken longer after the onset of symptoms. A combined IgG/IgM test seems to be a better choice in terms of sensitivity than measuring either antibody alone.

The second meta-analysis ([link](#)) was conducted by a different international group of authors (N=10 studies) and focused on point-of-care/fast/rapid tests for SARS-CoV-2 antibodies. The data sources included PubMed/MEDLINE and EMBASE, pre-print servers including medrxiv.org (up to 13 April 2020). A pooled sensitivity was found to be of 64.8% (95%CI 54.5-74.0) and specificity of 98.0% (95%CI 95.8-99.0), with high heterogeneity and high risk of reporting bias. The estimated pooled Cohen's kappa was 0.594 (95%CI 0.496-0.691), when comparing rapid tests to PCR gold standard, evidencing of only a weak agreement. The studies included had small sample size and were underpowered, thus, the authors conclude that use of antibody-based tests for clinical purposes cannot substitute other more reliable molecular tests, such as assays based on RT-PCR. It is suggested that tests based on viral RNA or antigens may be potentially more cost-effective. It should be taken into account, however that the median time of antibody appearance ranges between 3-6 days after the onset of symptoms

for both IgM/IgA, and IgG surge occurs within 19 days from the onset of symptoms, thus, in some of the studies tests could be performed too early.

Drugs, Vaccines, Therapies, Clinical Trials

- [Double-blind RCT: remdesivir significantly decreased time to recovery](#)

A double-blind, randomized, placebo-controlled trial was conducted on intravenous remdesivir in adults hospitalized with Covid-19 with evidence of lower respiratory tract involvement (N=1063 patients randomized). Preliminary results of the NIAID remdesivir RCT were published in NEJM after the Data and Safety Monitoring Board recommended early unblinding of the results. The remdesivir group median recovery time was 11 days (95% confidence interval [CI], 9 to 12), compared to 15 days (95% CI, 13 to 19) for the placebo group (rate ratio for recovery, 1.32; 95% CI, 1.12 to 1.55; P<0.001). The Kaplan-Meier estimates of mortality by 14 days were 7.1% with remdesivir and 11.9% with placebo (hazard ratio for death, 0.70; 95% CI, 0.47 to 1.04). Benefit was greatest in hospitalized patients requiring oxygen without high flow oxygen, intubation or ECMO (ordinal scale 5) at enrollment with HR (95%CI) for median time to recovery = 1.47 (1.17-1.84) and mortality by day 14 = 0.22 (0.08-0.58). Impact on recovery and mortality in those who were sicker at entry (ordinal 6: high flow oxygen & ordinal 7: intubation or ECMO) was not significant, but there were smaller numbers of study subjects in these groups. And, a higher proportion of these subjects were still hospitalized at the time of the interim analysis. While it's not possible to say that sicker patients don't benefit, it's clear that those in the ordinal scale 5 group do benefit with significant reduction in both time to recovery and mortality.

- [A plan to test over six vaccines in 100,000 volunteers is taking shape](#)

Plans to test multiple vaccine candidates simultaneously in July are underway in the US. Vaccine manufacturers are agreeing to share trial networks if a given vaccine fails. Vaccines from Moderna and Astrazeneca and others from the Operation Warp Speed shortlist will be tested. Fourteen other vaccines may be tested as part of the effort if they are able to finish preliminary testing by late June.

- [Pausing of the HCQ arm of the Solidarity Trial with Dr. Tedros.](#)

Video briefing covering WHO temporarily halting HCQ trial over safety concerns.

- [CanSino Biologics coronavirus vaccine appears safe in first human trial](#)

A phase I trial of adenovirus vaccine developed in Wuhan was found to be safe at low, medium, and high doses. The trial demonstrated that a single dose of the new adenovirus type 5 vectored COVID-19 (Ad5-nCoV) vaccine produces virus-specific antibodies and T cells in 14 days. A Phase II trial is currently underway, also in Wuhan.

- [First human vaccine tests by Novavax underway](#)

Novavax indicated Phase 1 trial in Australia would involve about 130 healthy participants aged 18 to 59, with a second phase to be conducted later in several countries. The Phase 2 trial will assess immunity, safety and COVID-19 disease reduction in a broader age range. Novavax launches its first coronavirus vaccine test on humans.

- [Efficacy and safety of integrated traditional Chinese and western medicine](#)

A meta-analysis studied traditional Chinese medicine including Chinese medicine compound drugs (QingFei TouXie FuZhengFang) and Chinese patent medicine (such as Shufeng Jiedu Capsule, Lianhua Qingwen granules). Compared with the control group, the overall response rate [RR=1.230, 95%CI (1.113, 1.359), P<0.001], cure rate [RR=1.604, 95%CI (1.181, 2.177), P=0.002], severity illness rate [RR=0.350, 95%CI (0.154, 0.792), P=0.012], and hospital stay [WMD=-1.991, 95%CI (-3.278, -0.703), P=0.002] of the intervention group were better. In addition, Integrated Medicine can improve the disappearance rate of fever, cough, expectoration, fatigue, chest tightness and anorexia and reduce patients' fever, and fatigue time (P<0.05).

- [Famotidine associated with improved clinical outcome](#)

Pre-proof: In a retrospective cohort study (n=1,620), famotidine use (n=84) within 24 hours of admission was associated with reduced intubation or death. Authors highlighted that this association cannot be used to claim that the medication is protective. A follow-up RCT is currently underway.

- [Renin-angiotensin-aldosterone \(RAAS\) inhibitors decrease mortality: review and meta-analysis](#)
Preprint: Patients taking RAAS for hypertension, overall pooled estimates showed 35% less likely to die from the virus compared to patients with hypertension not taking RAAS inhibitors (pooled RR= 0.65, 95% Confidence Intervals (CI): 0.45-0.94).
- [More than 90 vaccines are being developed against SARS-CoV-2 across the world](#)
Nature: More than 90 vaccines are being developed against SARS-CoV-2 across the world. At least six groups have begun injecting formulations into volunteers in safety trials. A graphical guide is presented explaining each vaccine design.
- [Antiviral efficacies of FDA-approved drugs against SARS-CoV-2 infection in ferrets](#)
Antiviral efficacies of lopinavir-ritonavir, HCQ sulfate, and emtricitabine-tenofovir for SARS-CoV-2 infection were assessed in the ferret infection model. Taken together, all antiviral drugs tested marginally reduced the overall clinical scores of infected ferrets but did not significantly affect in vivo virus titers. Despite the potential discrepancy of drug efficacies between animals and humans, these preclinical ferret data should be highly informative to future therapeutic treatment of COVID-19 patients.
- [Efforts in COVID-19 vaccine development in Africa](#)
Apart from South Africa, Kenya is the second African country awaiting approval for the COVID-19 vaccine trial.
- [COVID-19 drugs interactions website](#)
The website is developed to help practitioners to check for COVID-19 drug interactions (the link is [here](#)).
- [33 New COVID-19 Trials registered at clinicaltrials.gov](#)
Treatment trials: SARS-CoV-2-CZ-Preval, Resveratrol, Nigella Sativa, T Cell Infusions, Heparin vs. Prophylactic or Intermediate Dose Heparin, Favipiravir, Enoxaparin. At time of writing, a total of [1613](#) were active, [98](#) completed, and [3](#) posted results.

Other Science

- [Psychiatric and neuropsychiatric symptoms: systematic review & meta-analysis](#)
Lancet Psychiatry: The study of psychiatric and neuropsychiatric symptoms of SARS, MERS and COVID-19 analyzed 65 peer reviewed studies and 7 preprints. In acute infections, confusion occurred in 28% of patients. Frequent recall of traumatic memories, emotional lability, impaired concentration, fatigue, and impaired memory were reported in more than 15% of patients. Additionally, the majority of patients with severe acute respiratory distress syndrome (typically observed in severe COVID-19 illness) showed impairments of memory, attention, concentration, or reduced mental processing speed. Lancet provides a brief commentary on the article [here](#).
- [Morbid obesity as risk factor in patients <50 years old](#)
In a New York based study, multivariable logistic regression models identified variables independently associated with mortality in morbidly obese (BMI above 40 kg/m²) patients younger and older than 50. The population <50 years old (n=572) was independently associated with mortality (aOR 5.1, 95% CI 2.3–11.1). The population >50 years old (n=1,076) was independently associated with mortality to a lesser extent (aOR 1.6, 95% CI 1.2 – 2.3). Morbid obesity was also associated with intubation and mechanical ventilation.
- [Dermatologic manifestations in COVID-19 patients](#)
MedRxiv preprint: The study (n=171) identified the most common dermatologic morphologies included morbilliform, pernio-like, urticarial, macular erythema, vesicular, papulosquamous, and retiform purpura. In general, lesions tended to occur after (64%) or concurrently (15%) with other COVID-19 symptoms. Retiform purpura was seen exclusively in critically ill, hospitalized patients.
- [Panic buying following a health crisis: systematic review](#)
The systematic review of 18 studies showed an individuals' perception of the threat of the health crisis and scarcity of products, fear of the unknown, coping behavior, and social psychological factors are the primary factors linked to panic buying during a health crisis.

- [Roughly 1/3 of HCW experiencing anxiety, depression, or insomnia: systematic review & meta-analysis](#)
13 studies (n=33062), which were primarily conducted in China found the pooled anxiety prevalence was 23.20% (95% CI 17.77-29.12, I2=99%), pooled depression prevalence was 22.8% (95% CI 15.1-31.51, I2=99.62), and pooled insomnia prevalence was 34.32% (95% CI 27.45-41.54, I2=98%). All symptoms were more common in nurses and in women, but these variables were not checked for correlation.
- [Computational prediction of mortality in COVID19 patients](#)
Nature Machine Intelligence: This study on blood samples from infected individuals has identified three indicators (LDH, hs-CRP and lymphocytes), together with a clinical route, for COVID-19 prognostic prediction. An XGBoost machine learning-based model was developed that can predict the mortality rates of patients more than 10 days in advance with more than 90% accuracy, enabling detection, early intervention and potentially a reduction of mortality in patients with COVID-19.
- [Elevated N-terminal pro-brain natriuretic peptide is associated with increased mortality: meta-analysis](#)
The study (n=967) determined that elevated NT-proBNP was independently associated with increased mortality in COVID-19 pneumonia (HR 1.37 (1.19, 1.57), p<0.001; I2: 0%, p=0.77). It has 76% sensitivity and 88% specificity, and area under curve of 0.90. Pooled analysis of multiple cut-off point resulted in a sensitivity of 76% (46%–92%) and specificity of 88% (71%–96%).
- [Early predictors of clinical deterioration in 239 sick patients in Lombard, Italy](#)
A meta-analysis showed that the presence of comorbidities such as hypertension, coronary heart disease, and diabetes were associated with significantly higher mortality risk. Upon admission, those who died had elevated levels of cardiac troponin, C-reactive protein, interleukin-6, D-dimer, creatinine, and alanine transaminase. Decreased levels of albumin were also associated with increased risk of mortality.
- [Medical students gain skills reviewing emerging research](#)
Letter to the editor describes a program at the University of Manitoba where medical students on an interdisciplinary team were tasked with writing a newsletter to answer questions from physicians. Students gained skills in performing literature searches and evaluating research quality. This team-based model addressed discreet educational goals and contributed in a tangible way to an evolving pandemic and may have value outside of a pandemic.
- [A case of mink-to-human transmission: Dutch government](#)
Mink with the coronavirus have infected two people in the Netherlands in what are probably the first such cases of transmission during the epidemic, government and health authorities said on Monday, adding that the risk of such animal-to-human transmission of the virus outside the farms was “negligible.”

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