

Association of American Medical Colleges 655 K Street, NW, Suite 100, Washington, DC 20001-2399 T 202 828 0400 aamc.org

Highlights - AAMC Member Activities for Novel Coronavirus (Updated 04/7/20 3:00 PM)

The nation's medical schools and teaching hospitals are crucial contributors to protecting the health of the nation. The doctors, nurses, and health professionals who work there are vital parts of the first responder network, and they are prepared and ready to answer the call.

This document highlights some of the important work that the academic medicine community is performing in the face of the novel coronavirus. This is a compilation of press reports on and information from some AAMC member institutions.

This document will be updated periodically. If you would like to provide additional information, please contact Brian Lehman, AAMC director of public affairs at <u>blehman@aamc.org</u>.

Table Contents

| Front Lines/Facility Preparedness | 1 |
|-----------------------------------|----|
| Clinical care | 9 |
| Research and Testing | 13 |
| Internal Planning | 20 |

Front Lines/Facility Preparedness

Tufts University

In partnership with local health-care providers and its host communities, Tufts University announced it will make its residence halls available to house medical personnel, first responders, and patients, including those recovering from COVID-19, in an effort to help contain the spread of the virus as local hospitals prepare for a surge of cases that threatens to overwhelm their capacity.

Source: <u>https://now.tufts.edu/articles/tufts-make-residence-halls-available-local-hospitals-and-host-cities</u>

Massachusetts General Hospital

"We have millions of healthcare workers around this country who are prepared to do battle against this virus, but I am concerned there are a couple of areas of supplies they need to fight that virus as effectively as possible," said Peter Slavin, MD, president of Massachusetts General Hospital in Boston, according to NBC News. Dr. Slavin added that protective equipment, specifically surgical masks and eye protection, is in short supply.

On March 19, Dr. Slavin told NBC News reporter Perry Russom he is looking for people with 3D printers to help make protective masks for hospital employees.

In addition to Dr. Slavin's request, Mass General residents are also planning a virtual open "moonshot" competition to create a rapidly implementable mechanical ventilator within 90 days. Dubbed CoVent-19, the online competition is calling on engineers, designers and technologists to work with medical and ventilation experts to develop a device that allows a single hospital ventilator to treat multiple patients at once or a new type of ventilator that can be manufactured quickly.

Source: <u>https://www.beckershospitalreview.com/healthcare-information-technology/hospitals-tap-3d-printers-to-build-repair-medical-equipment-during-coronavirus-pandemic.html</u>

Mass General is a renowned medical center with just over 1,000 beds and top research facilities, the kind of place many patients want to be when something terrible happens. Yet in a sign of the enormous challenge covid-19 poses to the health-care system, even emergency-response teams here were bracing for an outbreak that seemed increasingly likely to test staff and resources.

The hospital's experts have been planning and practicing their response to dangerous infectious diseases since at least 2002-2003, when the emergence of SARS — severe acute respiratory syndrome — awakened the world to the potential for deadly new coronaviruses.

Mass General is one of 10 medical centers across the nation federally funded to handle patients infected by Ebola and other special pathogens. When covid-19 began spreading from China earlier this year, Mass General officials wrote a handbook for preparing and coping with the disease that has been used and adapted by hospitals in the United States and abroad.

Under the hospital's emergency plan, the first 10 patients admitted to the hospital will go to a unit designated for patients with special pathogens, a luxury most hospitals do not have. The next six will go to negative-pressure rooms on a floor normally reserved for neurological patients.

If an epidemic continues, the entire 16th floor of one building would convert into one large negative-pressure unit.

Source: <u>https://www.washingtonpost.com/investigations/a-look-inside-coronavirus-preparations-at-a-major-us-hospital/2020/03/09/9169d156-5f64-11ea-9055-5fa12981bbbf_story.html</u>

MedStar Washington Hospital Center

MedStar Washington Hospital Center, the largest medical center in the D.C. area, this weekend is prepping its "ready room" — a giant, 2,500-square-foot, all-hazards-ready space built after the Sept. 11 attacks for mass casualty events — to use in the event of a surge of coronavirus patients.

Craig DeAtley, director of emergency management, said doctors are also making plans to expedite discharge for non-coronavirus patients whose care is winding down and who are safe to send home a day early and to convert several parts of the hospital into dedicated coronavirus areas. DeAtley said patients can do their part to help, too: "Of paramount importance is staying calm."

Source: <u>https://www.washingtonpost.com/business/2020/03/14/hospital-doctors-patients-</u> <u>coronavirus/</u>

University of Washington Medical Center

The UW Medicine's Medical Center Northwest has turned part of the first floor of their fourstory parking garage into a mobile testing clinic. Think fast-food drive-through, but instead of getting served a juicy burger, nurses come to take a nasal swab.

In about a day, patients find out whether they have the coronavirus.

Delays in testing have set back the United States' response to containing the coronavirus, and the mobile clinic that has operated since March 6 is one attempt to identify cases earlier in Seattle, the center of the nation's outbreak.

"It's been a crazy couple of weeks," says Dr. Seth Cohen, who is leading the effort and is the medical director of infection prevention at the UW Medical Center.

Before patients are allowed to enter the drive-through clinic, they must fill out an online survey: Have they been experiencing cough, fever, shortness of breath, muscle aches, a runny nose or a sore throat? Did they have a specific exposure or recently travel to any countries with a current travel advisory?

Responses are screened, and those who seem to be candidates for testing are offered an appointment.

"This is a clinic for people who have symptoms," says Dr. Cohen. At this moment, there is no way for people who are asymptomatic to be screened.

Source: https://www.nytimes.com/2020/03/13/us/coronavirus-testing-drive-through-seattle.html

Employees of the University of Washington's UW Medicine system can now get tested for coronavirus without leaving their cars. The system's medical center in northwest Seattle has turned a hospital garage lot into a drive-through clinic that can test a person every five minutes.

They typically get results within a day or so. But the idea involves more than convenience. It's also about safety.

Source: https://www.npr.org/sections/health-shots/2020/03/08/813501632

Rush University Medical Center

Rush University Medical Center, the largest hospital in Chicago, put its surge protocols into effect Thursday morning for the first time in its 183-year history. The hospital has treated four confirmed cases of coronavirus and expects an onslaught in the coming weeks.

"We made the decision to surge because of the concern we're seeing nationally and internationally," said Omar B. Lateef, the hospital's chief executive. "The W.H.O. is making statements about the risks of inaction, so we felt a responsibility to do something."

Rush officials estimate that new triage tents outside — with chairs spaced 6 feet apart, the distance the World Health Organization recommends for separating infected individuals — and additional beds inside will increase the hospital's emergency department capacity by 40 percent.

Source: https://www.nytimes.com/2020/03/12/us/hospitals-coronavirus.html

Rush and other large hospitals across the country are quickly expanding the use of telemedicine to safely screen and treat patients for coronavirus, and to try to contain the spread of infection while offering remote services.

"This is a kind of turning point for virtual health," Dr. Meeta Shah, an emergency room physician at Rush said. "We're actually seeing how it can be used in a public health crisis."

Source: https://www.nytimes.com/2020/03/11/health/telemedicine-coronavirus.html

University of Nebraska Medical Center

Nebraska has a 10-bed biocontainment unit, complete with concrete walls, filtered air and video links to the nursing station. This unit was used for Ebola back in 2014. Additionally, the hospital's campus has the only federal quarantine unit in the country.

"What — heaven forbid — happens if an employee or staff member gets exposed to one of these agents, or even worse than that, gets infected, where are you going to put them? You can't just call up a local hospital and say, 'I've got somebody who has anthrax, make up a bed,'" said Dr. Jeffrey P. Gold, chancellor of the University of Nebraska Medical Center. "You need facilities that can do everything from air and water handling to the complexities of waste disposal."

At least two of the more seriously ill evacuees were being monitored in the hospital's biocontainment unit, a special ward on the seventh floor where the three Ebola patients were

treated in 2014. It looks like a typical hospital ward, but is equipped with special technology, including doors that act like an airlock and a separate area for doctors and nurses to change and shower.

The other evacuees are being housed across the street in a 20-bed quarantine unit, which opened last year and is a joint venture with the University of Nebraska Medical Center. The rooms resemble something out of a college dorm: beige walls, a single bed, wooden furniture. But each room also comes with exercise equipment, like a stationary bike or a treadmill, to help patients stay active if they are feeling well enough.

To fight against isolation, patients in the biocontainment rooms also have access to video technology that attaches to a separate room, so they can virtually visit with loved ones without risk of infection.

Source: https://www.nytimes.com/2020/02/18/us/coronavirus-omaha-nebraska-medical-center.html Some of the [biocontainment] unit's unique features include high-efficiency particulate air (HEPA) filtration system to ensure that micro-organisms do not spread beyond the patient rooms. There is a secured access main entrance featuring double doors that are pressure controlled. Staff have a separate, secured access entrance and exit. Dual "pass-through" autoclaves decontaminate waste, linens, and materials leaving the unit. Patient isolation rooms maintain negative air flow with 15 or more air exchanges per hour to assure that hazardous infections are contained. In addition, use of a secure telehealth communication system minimizes the number of staff needing to enter isolation rooms. Use of HEPA-filtered individual isolation units, sometimes called biopods or isopods, are available for safe transport and transfer of an infected patient to the unit. These are just some of the safety measures being taken to keep germs inside the unit and people safe on the outside.

Source: https://www.nebraskamed.com/biocontainment

Rhode Island Hospital

Leaders at Rhode Island Hospital in Providence have been planning for weeks for the arrival of the coronavirus. The virus appeared last week in one student and one staff member who traveled to Italy on a trip sponsored by a parochial high school in Pawtucket. As worry spread through the state, people who called the hospital in advance to seek a test were asked to remain in their cars until a doctor could go out to screen them.

"We have a physician in protective equipment go out to the car and put masks on anybody in the car, and take a history, and do a limited screening exam, and then do the testing, which in most cases is a nasal swab," said John B. Murphy, president of Rhode Island Hospital and Hasbro Children's Hospital. In the two positive cases, the results were available in four hours. Rhode Island Hospital has 70 "negative-pressure" patient rooms — which means airborne particles cannot escape — that can be used to isolate people. The hospital's engineers are analyzing how to turn entire floors of the hospital into isolation wards. The hospital has about 25 patients on ventilators on an average day. It can treat more than 100 people on ventilators in a demand surge, Murphy said. Beyond that, he said, in the worst case, the hospital would be forced to work with state officials to find outside facilities to isolate and treat patients."

Source: <u>https://www.washingtonpost.com/business/economy/the-us-health-system-is-showing-why-its-not-ready-for-a-coronavirus-pandemic/2020/03/04/7c307bb4-5d61-11ea-b29b-9db42f7803a7_story.html</u>

Johns Hopkins Medicine/Health System

Based on the current information available, patients diagnosed with COVID-19 should be cared for in a designated isolated area away from other patients using infection control practices outlined by the CDC. We have several areas in the hospital that can safely provide care for patients with respiratory viral diseases.

One area, the Johns Hopkins Biocontainment Unit (BCU), is the only one like it in the Mid-Atlantic region, and it is equipped to isolate and treat patients during an outbreak of a contagious virus. Such units are not necessary to care for patients with COVID-19; however, the BCU's capabilities make it a great resource for isolating patients when necessary. Teams of Johns Hopkins specialists in infectious disease, critical care, emergency medicine and public health work at the same location here in Baltimore. Many Johns Hopkins doctors and staff members work with colleagues at the CDC, the National Institutes of Health and the World Health Organization, as well as our local health department. We can confer with one another to make the best use of new information about COVID-19, clarify confusion among the public and help patients.

Source: <u>https://www.hopkinsmedicine.org/coronavirus/ask-the-expert.html</u> - Q&A with Brian Garibaldi, Director of the Johns Hopkins Biocontainment Unit

NYU Langone Hospital

Currently, there is one confirmed case of COVID-19 in New York City. If number of cases in New York City were to significantly increase and NYU Langone were to receive a large number of COVID-19 patients, Dr. Michael Phillips, Chief Epidemiologist at NYU Langone Hospital said they would escalate precautions to what he called a Level 3. In this situation, "we would open our surge units, which are designated respiratory isolation units, where we cohort patients with the same respiratory infections."

At NYU Langone they are adopting previous preparedness protocols for the flu with some changes. "The basic principles are the same but we are placing more preventative emphasis on airborne transmission," said Phillips, which means patients with flu or pneumonia-like symptoms that test negative for these illnesses and other common respiratory illnesses are *immediately placed under isolation for caution. Anyone coming in contact with these patients is required to wear a surgical mask and eye protection. He describes this change as a "big shift."*

Source: <u>https://abcnews.go.com/Health/us-hospitals-preparing-coronavirus/story?id=69259323</u>

Montefiore Hospital

"Our emerging infectious disease unit is an additional space that could be utilized if needed for this virus. We have taken extra steps to prepare this unit should we need to use it," said Dr. Theresa Madaline, epedimiologist at Montefiore Hospital.

Source: <u>https://abcnews.go.com/Health/us-hospitals-preparing-coronavirus/story?id=69259323</u>

Northwell Health

Dr. Mark Jarrett, the chief quality officer for Northwell Health says that across all 23 sites they are "working on screening, triage and identification so that any places of entry are included and addressed."

Source: <u>https://abcnews.go.com/Health/us-hospitals-preparing-coronavirus/story?id=69259323</u>

University Hospital (Rutgers)

At Rutgers, the negative pressure rooms for airborne isolation have been checked and stand ready for use. "If there is a large surge of patients, we may have to consider cohorting on separate wards," said Dr. David Cennimo, Assistant Professor of Medicine-Pediatrics Infectious Disease at Rutgers New Jersey Medical School.

Source: https://abcnews.go.com/Health/us-hospitals-preparing-coronavirus/story?id=69259323

Brigham and Women's Hospital

The Brigham has substantial experience evaluating and caring for patients with possible MERS, another type of coronavirus. A multidisciplinary team is collaborating to ensure the hospital is ready to respond if there is a need to test or provide care for patients with possible 2019-nCoV infection. Recent activities include:

- Updating screening protocols to rapidly detect patients with possible 2019-nCoV infections
- Partnering with Massachusetts General Hospital to add a Best Practice Advisory into Epic to flag patients with possible 2019-nCoV
- Educating providers about what to do if they are concerned a patient may have 2019nCoV
- Updating the Brigham's Infection Control plan for Emerging Respiratory Viruses to include 2019-nCoV

• Working with Materials Management to ensure adequate stock of personal protective equipment and laboratory supplies

Source: <u>https://bwhbulletin.org/2020/01/30/2019-novel-coronavirus-response-at-the-brigham-5-things-to-know/</u>

UCSF Health

UCSF Health has 46 airborne infection isolation rooms that can safely isolate patients with COVID-19. It can adapt additional rooms and hospital areas to care for larger numbers of patients if needed. In addition, UCSF Health's Hospital Incident Command System team is working on surge planning in the event of broader community spread.

Source: <u>https://www.ucsf.edu/coronavirus#prepare</u>

University of Texas Dell Medical School

"I think actually Austin is uniquely prepared," said Dr. Coburn Allen an infectious disease specialist at the University of Texas Dell Medical School.

"We've learned from previous epidemics around the world like MERS and SARS and Ebola that we want to be ready. We don't want to wait for this to come and surprise us," said Dr. Allen. That means cross-training between Austin hospitals, so the city is better prepared to detect, track and isolate infected patients.

"It's very similar to what we do with a tuberculosis patient and we have tuberculosis patients and patients with possible measles and things like that who will come through Austin not infrequently. So, it's the same sort of process, just potentially on a much larger scale," said Dr. Allen.

Source: https://cbsaustin.com/news/local/austin-has-precautionary-plan-to-deal-with-coronavirus

Icahn School of Medicine at Mount Sinai

The Mount Sinai Health System has been preparing for the arrival of the novel coronavirus, now known as COVID-19, in the New York area. Our infectious disease specialists are trained and equipped to care for patients with complex diseases such as COVID-19.

Source: <u>https://www.mountsinai.org/about/preparedness/novel-</u> coronavirus?_ga=2.248382407.1500982182.1583187338-921331066.1583187338 https://www.mountsinai.org/about/preparedness/novel-coronavirus/faqs

University of Chicago Medicine

We're also instructing our clinical teams to follow standard infection control protocols. So our doctors, nurses and other clinical staff will wear gear like gowns, gloves, masks and eye shields. That's what they'd do with anyone who has something like the flu and it's the same steps we

followed during the SARS and MERS outbreaks. We're also reminding everyone to make sure to wash their hands regularly and avoid touching their faces — that's good practice any time of the year, but especially during flu season.

Source: <u>https://www.uchicagomedicine.org/forefront/prevention-and-screening-articles/wuhan-coronavirus</u> - Transcript of video with Emily Landon, MD

Virginia Commonwealth University

With the deaths of the head of Wuhan's Hospital and several clinical workers due to the coronavirus infection, a VCU Health doctor says the hospital is well equipped to deal with this or any other threat.

"It starts from a point of entry, whether it's a clinic or an emergency department, with appropriate and rapid isolation of a patient at the point of care," said Dr. Gonzalo Bearman, Chair of the Division of Infectious Diseases at VCU Health.

Bearman told VPM that they would make all stakeholders and health care workers aware of the presence of the case to ensure safe protocols were followed.

Source: <u>https://vpm.org/news/articles/10726/vcu-infectious-disease-specialist-says-hospital-workers-are-safe-from-virus</u>

Clinical Care

Cleveland Clinic

The Cleveland Clinic logged over 60,000 telehealth consultations in March, nearly 20 times their usual 3,400 monthly visits.

Source: <u>https://www.washingtonexaminer.com/opinion/telehealth-is-more-than-an-emergency-measure-during-coronavirus</u>

NYU Langone Health

Overwhelmed with COVID-19 patients and anxious to contain the virus, hospitals such as NYU Langone Health have begun directing patients to consult with doctors by phone, computer, or tablet. NYU Langone recently added 1,300 providers to its telehealth network, as virtual visits skyrocketed from around 60 per day to 1,000 per day.

Source: <u>https://www.washingtonexaminer.com/opinion/telehealth-is-more-than-an-emergency-measure-during-coronavirus</u>

University of Washington

As soon as COVID-19 hit the state of Washington, for instance, UW Medicine leveraged its preexisting virtual clinic through Amwell to help triage potential COVID-19 patients. Furthermore, they provided that service free of charge to any patient 24/7, and not surprisingly, had a tenfold increase in calls. "We thought it was important to provide that service to the community and it's been utilized quite a bit," John Scott, MD, medical director for digital health at University of Washington (UW) Medicine in Seattle says.

UW Medicine is also rapidly scaling up its ability to see many of its non-COVID-19 patients via video visit and has been training clinicians in all 45 specialties to provide telemedicine visits, hopefully by the end of the week, Scott says.

Source: <u>https://www.aamc.org/news-insights/covid-19-races-through-communities-hospitals-ramp-telehealth-protect-patients-and-providers</u>

LCMC Health

"We just started this last week," says Scott Mackey, DO, associate chief medical information officer for LCMC Health who is leading the rapidly evolving telemedicine efforts. "We have a COVID hotline, which patients can call to get screened by a nurse. If they screen positive, then we step up the telehealth visit, and they're connected with one of our emergency department physicians" who has been quarantined but can still evaluate patients.

About 10% of those patients are then directed to the ED at University Medical Center New Orleans, where they are quickly isolated in one of six video-equipped rooms. From there, ED physicians in the hospital continue to evaluate the patient via the HIPAA-compliant videoconferencing platform Zoom, with just one nurse in personal protective equipment (PPE) allowed in the room to take vital signs and draw blood. From there, the patient is either admitted to the hospital or discharged for COVID-19 testing or isolation.

Source: <u>https://www.aamc.org/news-insights/covid-19-races-through-communities-hospitals-ramp-telehealth-protect-patients-and-providers</u>

University of Arkansas for Medical Sciences

At the University of Arkansas for Medical Sciences (UAMS), a plan to roll out telemedicine one clinic at a time has evolved into a rush to make most of the hospital's clinics telemedicine-ready in the next few days, says Curtis Lowery Jr., MD, director of the Institute for Digital Health and Innovation at UAMS. "We're trying to keep our regular patients out of our clinics," he says.

Likewise, an initial plan to train all providers to use UAMS' videoconferencing platform at the university's training facility has evolved into a push to encourage providers to watch an online training module. "Our plan was to bring [the technology] up sequentially and train everybody in the process but this crisis has created a need to circumvent some of that process."

UAMS has a robust and secure online system for handling incoming queries, both for COVID-19related screening and telemedicine visits. Not surprisingly, though, the surge in demand has placed an enormous strain on the hospitals' servers. "We have a virtual war room with 15-20 tech people working around the clock to ensure our systems stay online," Hollander says.

Source: <u>https://www.aamc.org/news-insights/covid-19-races-through-communities-hospitals-ramp-telehealth-protect-patients-and-providers</u>

University of Kentucky HealthCare

At the University of Kentucky (UK) HealthCare, providers are rapidly deploying two telehealth options, both using the Zoom videoconferencing platform, says Philip Bernard, MD, medical director of physician information technology services at UK HealthCare. The first is for unscheduled acute care, and the second is for previously scheduled outpatient visits. "Before, we had limited use of Zoom for specific patient populations, and there was significant resistance to operationalizing this across the system," he says. "Now we have a patient population that is actively searching for the ability to be seen without leaving their homes."

Source: <u>https://www.aamc.org/news-insights/covid-19-races-through-communities-hospitals-ramp-telehealth-protect-patients-and-providers</u>

Augusta University Health

Has created a tool that people can use from their home that will allow a provider to interact with a concerned patient. The provider is trained to screen for COVID-19. If the result is a positive screening, then further instructions will be provided on where to present for testing.

Link to screening: https://www.augustahealth.org/expresscare/covid-19-virtual-screening

University of Missouri School of Medicine

...medical leaders are setting up a telehealth service within the emergency department specific to the coronavirus so that patients can call in to ask questions and health care providers can ascertain whether a patient should come in for treatment, says Victor Arnold, executive director of University Physicians. "We have gotten a ton of EHR portal queries, and this is a way to rechannel those queries and act faster."

Source: <u>https://www.aamc.org/news-insights/what-we-do-academic-medicine-mobilizes-prepare-covid-19</u>

Johns Hopkins Medicine/Health System

Teams throughout the Johns Hopkins Health System are focusing on caring for patients. We are prepared to identify, isolate and inform our state health department about any potential cases of COVID-19. Our health system has set up appropriate screenings at all entry points, and we are providing guidance to our staff members on how to deal with the possibility of COVID-19 cases.

All our affiliated hospitals are preparing to provide care for patients with COVID-19 using current guidance from the Centers for Disease Control and Prevention (CDC) and our health system infection prevention team. We also stand ready as a resource to our state and regional partners to provide assistance to care for patients with confirmed COVID-19 who might require a higher level of care.

Source: <u>https://www.hopkinsmedicine.org/coronavirus/ask-the-expert.html</u> - Q&A with Brian Garibaldi, Director of the Johns Hopkins Biocontainment Unit

UC Davis Medical Center

Today [Feb. 26, 2020] we learned a patient we are treating here at UC Davis Medical Center for the novel coronavirus (COVID-19) is being investigated by the CDC as possibly the first patient to have received the infection from exposure in the community.

As we regularly handle patients with infectious diseases, we have robust infection control protocols in place to handle this patient and others with more frequently seen infectious diseases. In this case, we are dedicated to providing the best care possible for this patient and continuing to protect the health of our employees who care for them.

Source: <u>https://health.ucdavis.edu/health-news/medicalcenter/novel-coronavirus-patient-and-precautions-at-uc-davis-medical-center/2020/02</u>

Brigham and Women's Hospital

"We are conducting drills on the identification, transport, rooming and safe care of patients," said Brigham and Women's Hospital spokesperson, on how they are optimizing efficiency and responsiveness to a potential COVID-19 patient.

Source: <u>https://abcnews.go.com/Health/us-hospitals-preparing-coronavirus/story?id=69259323</u> Patients with a fever or symptoms of a lower-respiratory illness, such as coughing or difficulty breathing, and who have recently traveled in China are considered at risk for 2019-nCoV infection. For these patients, clinicians have been advised to institute strict isolation precautions (airborne, contact and eye protection) immediately and page the Biothreats attending physician on call.

Source: <u>https://bwhbulletin.org/2020/01/30/2019-novel-coronavirus-response-at-the-brigham-5-things-to-know/</u>

Dartmouth-Hitchcock Medical Center

D-H is prepared to care for patients with COVID-19, as well as patients who are suspected of having the virus. Our hospitals, clinics and departments are open and are safe for patients. A High Threat Infection Team (HTI), comprised of doctors, nurses, laboratory technicians, and respiratory therapists, is on hand to care for any patient suspected of having a high-threat infection who arrives at D-H.

Upon arrival to our D-HH ambulatory clinics, urgent care clinics, and emergency departments, patients are screened for cough, fever or international travel. Similar screenings are occurring for patients being transferred to our facilities from other institutions. This allows for early isolation of patients with potential COVID-19 symptoms.

Source: https://www.dartmouth-hitchcock.org/patient-education/coronavirus.html

UCSF Health

Teams are working to ensure the campus and UCSF Health are prepared and that faculty, staff, students, patients and visitors are informed about the outbreak. The health and safety of our UCSF community, and our patients and visitors, is among our most important priorities. UCSF remains focused on three primary goals:

- providing compassionate and safe care for patients with COVID-19
- providing support and training to keep our health care workers and other employees safe while caring for these patients, and
- communicating regularly with and offering guidance to the UCSF community during this fluid situation.

UCSF Health has a proven track record of protecting and safely caring for patients with infectious diseases and severe illnesses and was among the first hospitals to start preparing for a large influx of patients. As a result, UCSF Health has the facilities and protocols in place to enable us to care for these patients, while protecting the health of our faculty, staff, students, patients and visitors.

Source: https://www.ucsf.edu/coronavirus#prepare

Research and Testing

Mayo Clinic

Mayo Clinic will be the lead institution providing coordinated access to investigational convalescent plasma for hospitalized patients with severe or life-threatening COVID-19, or those at high risk of progression to severe or life-threatening disease. The Food and Drug Administration (FDA) announced the designation on Friday, April 3.

Convalescent plasma refers to blood plasma collected from people who have recovered from COVID-19. That plasma is then used to treat others with advanced illness. The plasma donor must have recovered from, and tested negative for, COVID-19 and be otherwise healthy. The patient is transfused with the donor's plasma, which contains antibodies that can attack the virus and may help patients recover more rapidly.

Source: <u>https://newsnetwork.mayoclinic.org/discussion/mayo-clinic-named-national-site-for-</u> convalescent-plasma-expanded-access-program/

University of Minnesota and Mayo Clinic

The University of Minnesota and Mayo Clinic are close to unveiling antibody tests that can determine if people have already been infected by the coronavirus that causes COVID-19 and are no longer threats to get or spread the infection.

State health officials see these tests as a key part of Minnesota's pandemic response, because they could define the breadth of the outbreak and maybe identify previously infected individuals who could move about in public freely and volunteer in response efforts.

Identifying people with immunity to the virus "gives us the ability [to know] who wouldn't need to be quarantined, who could be out and not infecting others," Gov. Tim Walz said on Monday.

Antibodies are proteins produced by the immune system in response to infections and can be found through tests of blood serum — the clear liquid that separates out when blood clots. In the case of SARS-CoV-2, the virus causing the current pandemic, antibodies don't show up in sufficient quantities for eight to 11 days.

That makes antibody testing ineffective for the purpose of early diagnosis, but a potentially powerful tool for identifying anyone who was infected, whether they had symptoms or not. "In theory, you probably want to test everybody in the country," said Marc Jenkins, director of the University of Minnesota's Center for Immunology.

Testing could be particularly important for health care workers, whose infection risks could be heightened if they run out of protective masks and face shields when working with any surge of COVID-19 patients. If they've already been infected, those workers could have immunity although there is only limited evidence so far that people cannot be reinfected by this coronavirus.

Source: <u>https://www.startribune.com/u-mayo-ready-covid-19-antibody-tests-in-minnesota/569233992/?refresh=true</u>

University of Florida

Throughout this week, students from the UF College of Medicine are assisting in screening seniors in The Villages[®] for COVID-19. Currently, The Villages[®] is home to 130,000 residents who are at a higher risk for serious health complications resulting from contracting the COVID-19 virus.

Last week, the students trained under the guidance of Michael Lauzardo, M.D., deputy director of the UF Emerging Pathogens Institute and an associate professor in the division of infectious diseases and global medicine at the UF College of Medicine. Students were instructed in methods for assisting the health care professionals who will be administering the tests and received important information about the appropriate use of personal protection equipment, as outlined by the Centers of Disease Control and Prevention. Lauzardo said 75 students trained during a session on Saturday, with a total of 120 registered to be trained and deployed throughout the week.

Source: <u>https://news.drgator.ufl.edu/2020/03/23/uf-health-science-students-offer-service-in-the-villages/?utm_source=twitter&utm_medium=aamctoday&utm_content=103dd8f9-52a4-4935-bb18-3fa27d980bad</u>

Mount Sinai Hospital

Blood from people who have recovered can be a rich source of antibodies, proteins made by the immune system to attack the virus. The part of the blood that contains antibodies, so-called convalescent plasma, has been used for decades to treat infectious diseases, including Ebola and influenza.

"It's kind of difficult scientifically to know how valuable it is in any disease until you try," said Dr. David L. Reich, president and chief operating officer of the Mount Sinai Hospital, which will be using the treatment. "It's not exactly a shot in the dark, but it's not tried and true."

Dr. Reich said it would be tried as a treatment for hospitalized patients who had a moderate form of the disease and had trouble breathing, but not for those who are in advanced stages of the disease.

Source: https://www.nytimes.com/2020/03/26/health/plasma-coronavirus-treatment.html?action=click&module=Top%20Stories&pgtype=Homepage

Duke University Hospital

Duke University Hospital has joined the first national study to test a potential therapy for COVID-19, giving hospitalized adult patients with significant symptoms an option to participate.

The investigational treatment, known as remdesivir, is an antiviral agent that was previously tested in humans with Ebola virus disease and has shown promise in animal studies against MERS and SARS, diseases that emerged from different strains of the coronavirus.

Duke is set to begin enrolling eligible patients immediately.

Source: <u>https://corporate.dukehealth.org/news-listing/duke-joins-first-national-effort-test-potential-covid-19-therapy</u>

Augusta University Health

To quickly meet demand, the GEM Lab team is now working around the clock to increase their testing capacity, which started at 72 tests in a 24-hour period and which they want to expand to 500 in coming weeks. The MCG GEM Lab also will work with other CLIA-certified labs interested in offering their new test.

Source: <u>https://jagwire.augusta.edu/novel-coronavirus-test-provides-fast-accurate-results/</u>

University of Pittsburgh School of Medicine/UPMC

Thanks to the efforts of its Center for Vaccine Research and its high-tech, highly secure biocontainment lab, the University of Pittsburgh is one of the select few institutions around the world that are racing to find a vaccine to stop the spread of the deadly new coronavirus strain.

Earlier this month, Pitt's Regional Biocontainment Lab received two vials containing about 500,000 ml of the SARS-CoV-2 virus from the U.S. Centers for Disease Control, which had been gathered from someone in the United States who had the Covid-19 disease. Pitt had requested the sample of the virus in an effort to study it and develop a potential vaccine against it, which has killed more than 2,600 people and sickened nearly 80,000 worldwide.

There is, of course, no guarantee of success of finding a vaccine for this particular strain of coronavirus. But in an interview earlier this month, Paul Duprex, director of the Center for Vaccine Research and a professor of microbiology and molecular genetics at the University of Pittsburgh, said that it would take months to develop a potential vaccine. And that doesn't include clinical trials to determine safety and efficacy, as well as manufacturing time.

"Whenever we talk about vaccines, we're in it for the long haul and months of work," Duprex said.

The lab, and the Center for Vaccine Research, are uniquely suited for work on the coronavirus. The Regional Biocontainment Lab is one of 13 around the country that are funded by the National Institutes of Health and at the third of four levels of biocontainment. It's designed to handle all but the most deadly pathogens like Ebola, and Biosafety Level 3 is more than enough to safely study the virus and create potential vaccines.

Source <u>https://www.bizjournals.com/pittsburgh/news/2020/02/24/pittsburgh-lab-on-front-lines-of-coronavirus.html</u>

University of Nebraska Medical Center

UNMC researchers announced that they had begun the first clinical trial in the United States of an experimental treatment for the coronavirus, sponsored by an arm of the National Institutes of Health. The first patient to enroll in the trial is one of the Americans from the cruise ship.

Source: <u>https://www.omaha.com/livewellnebraska/health/the-week-in-coronavirus-nebraska-starts-</u> <u>clinical-trial-schools-update/article_efff6f06-be4f-5782-88a6-ec14a5d75073.html#1</u>

Harvard Medical School

Through a five-year collaborative research initiative, Harvard University and Guangzhou Institute for Respiratory Health will share \$115 million in research funding provided by China Evergrande Group, a Fortune Global 500 company in China.

While formal details of the collaboration are being finalized, the overarching goal of the effort is to elucidate the basic biology of the virus and its behavior and to inform disease detection and therapeutic design. The main areas of investigation will include:

- Rapid, more accurate diagnostic tests, including point-of-care testing
- Understanding the body's immune response and host-pathogen interaction, including identification of biomarkers that can help monitor the infection course and disease progression and forecast the onset of critical illness and life-threatening complications among infected patients
- Vaccines to prevent infection
- Antiviral therapies that shorten the duration of the illness and mitigate symptoms among those infected
- Treatments for those with severe disease

Source: https://hms.harvard.edu/news/tackling-coronavirus

University of Washington School of Medicine

The lab of Dr. Alex Greninger, in the virology division of Laboratory Medicine at the University of Washington School of Medicine, is studying the latest genomic information about this emerging virus, and its possible implications for the clinical virology laboratory.

Source: <u>https://newsroom.uw.edu/resource/uw-medicine-works-diagnostic-tests-2019-novel-</u> <u>coronavirus</u>

The University of Washington School of Medicine is moving forward with a new clinical lab test for the COVID-19 coronavirus, and plans to be able to test up to 1,500 samples per day by the end of the week.

Source: <u>https://www.geekwire.com/2020/uw-medicine-ramps-new-coronavirus-lab-test-mass-distribution/</u>

UC San Francisco

An infectious disease expert at UCSF is working on a quick diagnostic test for the deadly coronavirus that has rapidly spread from Wuhan, China, to spark global concern and prompt public health preparations in at least two Bay Area counties.

Source: <u>https://www.sfchronicle.com/bayarea/article/Coronavirus-UCSF-expert-working-on-quicker-15014490.php</u>

Emory University

An antiviral compound discovered at Emory University could potentially be used to treat the new coronavirus associated with the outbreak in China and spreading around the globe. Drug Innovation Ventures at Emory (DRIVE), a non-profit LLC wholly owned by Emory, is developing the compound, designated EIDD-2801.

Source: https://news.emory.edu/stories/2020/02/coronavirus_eidd/index.html

University of Alabama School of Medicine

The investigational drug remdesivir, developed through research conducted through the Antiviral Drug Discovery and Development Center, or AD3C, and centered at the University of Alabama at Birmingham, is being used to treat select infected patients in the United States and in China who have been affected by the outbreak of novel coronavirus (2019-nCoV).

Source: <u>https://www.uab.edu/news/health/item/11082-investigational-compound-remdesivir-developed-by-uab-and-nih-researchers-being-used-for-treatment-of-novel-coronavirus/</u>

University of Maryland School of Medicine

The novel coronavirus at the center of a widening global public health emergency arrived here last Friday in two thumb-size vials, nested in dry ice and multiple layers of protective packaging. The samples, from the Centers for Disease Control and Prevention in Atlanta, remained in deep freeze until Monday afternoon, when virologist Matthew Frieman at the University of Maryland School of Medicine got clearance from an internal biosafety committee to open the tubes in his secure laboratory and begin experiments.

Frieman plans to test two dozen drugs that showed promise against two previous lethal coronaviruses, severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS), to see if they work against the new coronavirus. Because those drugs have already been tested in humans and approved for other conditions, such as cancer, they could be rapidly put into use. He's also partnering with companies that need the expertise of a laboratory that works directly with the virus to test new therapeutics or <u>vaccines</u>.

Source: <u>https://www.washingtonpost.com/science/2020/02/14/inside-lab-where-scientists-are-working-urgently-fight-coronavirus-outbreak/</u>

Columbia University Irving Medical Center

Four research teams at Columbia University will share a \$2.1 million grant to mount an aggressive effort to identify potential antiviral drugs and antibodies for use against the new coronavirus, 2019-nCoV. The funding was awarded by the Jack Ma Foundation, based in Hangzhou City, Zhejiang Province, China. As part of the project, the Columbia scientists will collaborate with academic researchers in China who are fighting to control the outbreak.

The Columbia teams will pursue four different approaches to develop drugs or antibodies that prevent the virus from replicating. Each approach will draw on prior knowledge and expertise the scientists gained while working on successful antiviral therapies against HIV and hepatitis C.

Source: <u>https://www.cuimc.columbia.edu/news/columbia-university-researchers-awarded-2-million-identify-antiviral-drugs-new-coronavirus</u>

Baylor College of Medicine

Doctors at the Baylor College of Medicine are working around the clock to bring out a preliminary vaccine to combat the coronavirus, or COVID-19, according to The Associated Press. However, a previously frozen vaccine could effectively protect people.

Dr. Peter Hotez, dean for the National School of Tropical Medicine at Baylor College of Medicine told The AP he recalled finding a vaccine that was meant to combat a previous virus from 2003, SARS. But it was developed well after the virus had diminished.

That vaccine became eventually frozen, and with coronavirus cases rising by the day, they are pushing Chinese and U.S. authorities to give it a try this time.

"Ours is already manufactured, and could take off pretty quickly," he said.

Hotez worked with his colleague, Dr. Maria Elena Bottazzi on the SARS vaccine. Using the virus' genetic code called messenger RNA, it instructs cells to make particular proteins.

"We're also engineering a potentially new vaccine that will be much more specific against the COVID-19," Bottazzi said.

Researchers are still working on a vaccine entirely from scratch that will take them several years to develop.

Source: <u>https://www.click2houston.com/health/2020/02/28/these-texas-doctors-are-working-on-a-vaccine-for-the-coronavirus/</u>

Internal Planning:

Penn Medicine

The idea of tapping into space at the Hahnemann property came as a result of conversations with Patrick J. Brennan, Penn Medicine's chief medical officer, Farley said.

Farley said there was no evidence yet that the virus was spreading within Philadelphia, but if the experience of other regions and countries is any guide, the situation could change in a hurry.

"If we have a big surge, it would be difficult," the commissioner said.

Brennan, who was among those at the meeting Wednesday, said Penn also had explored possible ways to expand its own capacity in a worst-case scenario.

Source: <u>https://www.inquirer.com/health/coronavirus/coronavirus-surge-philadelphia-hahnemann-hospital-use-20200311.html</u>

Yale New Haven

If the COVID-19 outbreak worsens in the U.S., it could be the hospital, not the patient, that cancels elective procedures. Dr. Tom Balcezak, the chief medical officer of Yale New Haven Health, told Modern Healthcare such a move wouldn't be the academic health system's first choice, but it would delay elective surgeries—especially cardiac and neurological, which require post-operative ICU care—if it needed more ICU capacity.

For its part, Yale New Haven Health is actively preparing for COVID-19 patients as the number of cases in neighboring New York and Massachusetts rise. Connecticut saw its first case of the

coronavirus on March 8. The system activated its incident command structure across its seven campuses and five hospitals, which gives leadership more authority than usual to use financial and human resources, Balcezak said.

Yale New Haven is assessing whether it has adequate amounts of personal protective equipment and other supplies and has called in additional staff. Luckily, Balcezak said the system still has a number of traveling nurses on board from the winter flu surge. Yale New Haven also set up a call center for employees, medical staff and the public that's operating out of a newly created command center.

Source: <u>https://www.modernhealthcare.com/providers/doctors-report-canceled-procedures-amid-covid-19</u>

Rutgers New Jersey Medical School

"We are utilizing or modifying plans that have been in place for pandemic influenza and SARS. We are prioritizing the travel questions but this is not much different than we were doing during the Ebola outbreaks," said Dr. David Cennimo, Assistant Professor of Medicine-Pediatrics Infectious Disease at Rutgers New Jersey Medical School.

Source: <u>https://abcnews.go.com/Health/us-hospitals-preparing-coronavirus/story?id=69259323</u>

University of Alabama School of Medicine

In a media conference Thursday, UAB infectious disease physicians Jeanne Marrazzo, M.D., and Rachael Lee, M.D., discussed the latest trends of the virus and its threat to Alabamians, their roles nationally and internationally, UAB Hospital's extensive expertise in infectious diseases, and the systems in place to monitor and address them. Wesley Willeford, M.D., medical director of Disease Control with the Jefferson County Department of Health, also discussed coordinating coronavirus testing with the CDC and the role the JCDH will play in the event of a confirmed case in central Alabama.

Source: <u>https://www.uab.edu/news/health/item/11068-uab-infectious-disease-experts-address-novel-coronavirus</u> - Link to video of press conference

Florida Atlantic University Schmidt College of Medicine

Emergency medicine residents from Florida Atlantic University took part in an intense, realistic drill to prepare for a surge of coronavirus patients at one time.

"Doing it hands on, it really is the best training," said Daniel Parks, a third year emergency medicine physician resident at FAU's Schmidt College of Medicine.

Source: https://www.wflx.com/2020/03/03/fau-medical-students-prepare-coronavirus/

George Washington University

Op-ed from James P. Phillips, MD, an assistant professor of emergency medicine at the George Washington University and chief of the Section of Disaster and Operational Medicine. He discusses how to protect health care workers, telehealth's role, and capacity issues in ERs across the country.

"As an emergency physician at an urban hospital in Washington, DC, this is personal. My colleagues and I will be on the front lines as American emergency agencies will soon likely experience a large and sustained surge of patients with Covid-19 concerns. The public should find comfort that health experts have been preparing for weeks."

Source: <u>https://www.cnn.com/2020/03/03/opinions/im-an-emergency-doctor-i-expect-to-get-coronavirus-phillips/index.html</u>