

Iowa system monitors COVID-19 patients at home to cut ICU admits

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Tanya Albert Henry

Contributing News Writer

When physicians at the University of Iowa Hospitals & Clinics (UIHC) began seeing a trickle of COVID-19 cases in their area, they acted fast to change the way they delivered care so that fewer patients, clinicians and members in the community as a whole would be exposed to the fast-spreading virus and so patients got care quickly.

Track the fast-moving pandemic with the AMA's COVID-19 resource center, which offers a library of the most up-to-date resources from JAMA Network™, the Centers for Disease Control and Prevention, and the World Health Organization.

UIHC, an AMA Health System Program Partner, was already bustling with patients coming into their six walk-in clinics during influenza season.

Given that patients with the flu and those with COVID-19 experience many of the same symptoms, the doctors at UIHC turned to telehealth to protect clinic patients from getting the virus if they didn't already have it, to stop those with the virus from further spreading it while in the waiting or exam room, and to protect clinicians and staff from being exposed.

Limiting those exposures, in turn, would help flatten the curve so that the health system would be less likely to experience a surge it couldn't handle. UIHC officials had the conversations during the first week of March. By March 10 the system—which previous had used telemedicine minimally—was fully running the clinics via telehealth. It took just four days to make the switch.

Read about key changes made to telehealth guidelines to boost COVID-19 care, and discover how this AMA quick guide helps doctors boot up their telemedicine practice.



Katherine L. Imborek, MD

At UIHC, after consulting with a physician or other clinician online, a patient can be sent to a clinic for a physical exam if needed. On March 12, a designated Respiratory Clinic began serving as the location that would test and treat only suspected COVID-19 patients.

“During H1N1 in 2009, we saw everyone who was worried they had it coming in in droves to be tested. We want to prevent that this time so that healthy people are not exposed or infected people are not spreading it. Telemedicine lets us provide people reassurance from their home and direct them to come in if they need to,” said Katherine L. Imborek, MD, associate professor of family medicine and director of Offsite Primary Care for UIHC.



Bradley L. Manning, MD

Meanwhile, the hospital in early March also set up a way to use telehealth to monitor and care for patients who tested positive for COVID-19. By closely monitoring patients not sick enough to be in the hospital, they are hoping to help as many patients as possible to recover without needing hospital care. And when a patient does start to worsen, they hope to get the patient to the hospital before they need to be in an intensive care setting.

“We are hopeful it will help the health care system so that we have fewer people in the hospital when a surge comes and that we can care for some of the patients through outpatient care. We are flattening the hospitalization curve, or at least blunting it,” said Bradley L. Manning, MD, clinical assistant professor of internal medicine. He also is hospital incident command system medical care branch director for UIHC.

Here is a look at how UIHC physicians quickly rolled out a new way of seeing patients.

Getting everyone on board with telehealth

The transition to telehealth was a fairly simple one for UIHC physicians and other clinicians, Dr. Imborek said. They use Epic software and the workflow for everyone is about the same; doctors only need to click a box within Epic to start a video connection with a patient.

When they started telehealth for respiratory illness symptoms, and anytime a new clinician uses it, they go to a location that has dedicated work stations and at-the-elbow tech support so they can learn how to navigate telemedicine.

UIHC’s tech team also is on call to help out. And, if physicians are having trouble connecting with a patient via video, they also can pick up the phone to consult. UIHC’s physicians and other health professionals are now providing 200 to 500 respiratory illness video visits daily and had completed over 6,000 visits since March 10. By early April, about 1,000 patients were seen in-person at the clinic dedicated to respiratory patients, Dr. Imborek said.

Learn with the AMA about how Permanente uses telehealth during the COVID-19 pandemic.

Informing patients to avoid walk-ins

Educating patients to not walk into a quick care or urgent care clinic was a team effort, but patients caught on quickly, Dr. Imborek said. They put signs on clinic doors telling people to stop and instead schedule something via telemedicine or to call a designated number for those who had COVID-19 symptoms.

With most patients already using the MyChart portal, that service was used to inform patients about scheduling video visits. They also relied on UIHC’s marketing team, their website and press releases to local media to spread the word.

Following patients at home

UIHC activated its hospital incident command system on March 9, deciding to monitor patients who are fighting COVID-19 from home. The day a positive COVID-19 test comes back, a nurse calls the patient and a kit with a blood pressure cuff and a pulse oximeter is delivered to the patient's door. Patients take their own vitals every day and a nurse follows up with patients to see how they are faring; if a patient's condition worsens, a physician will follow the case and direct them to the hospital if necessary.

At this article's deadline in early April, physicians were actively following 30 COVID-19 patients. Overall, they had seen 90 positive tests; 45 patients had been cleared. Five patients had been admitted to the hospital. Physicians sent two patients to the hospital after their first contact with the patient through telehealth; three patients were sent after they had been followed via telehealth for a few days and their condition worsened.

Minimizing ICU admits

Dr. Manning said part of the goal is to catch things early if they take a turn for the worse and to get the patient to the hospital sooner rather than later. Also, the interaction allows them to notify the hospital a COVID-19 patient is coming so the staff can be prepared. In addition to answering questions that scared patients have, nurses and physicians spend a lot of time getting people to stay hydrated.

While scientific studies aren't there, Dr. Manning said anecdotally they are hearing from patients that they are experiencing dysgeusia. Patients report even water and Gatorade tasting like dirt and metal, to the point where they just can't drink fluids.

But, Dr. Manning said, they are telling people that not staying hydrated is more likely to result in a hospital stay, reminding patients of the importance of staying hydrated. The system in place also allows them to catch dehydration earlier, sending patients to the respiratory clinic for IV fluids and electrolytes if needed.